

=> d que 155

L2 1 SEA FILE=REGISTRY ABB=ON PLU=ON 9011-14-7/RN
 L3 1 SEA FILE=REGISTRY ABB=ON PLU=ON 80-62-6/RN
 L4 1 SEA FILE=REGISTRY ABB=ON PLU=ON 106-91-2/RN
 L5 1 SEA FILE=REGISTRY ABB=ON PLU=ON 126843-37-6/RN
 L6 1 SEA FILE=REGISTRY ABB=ON PLU=ON 603997-38-2/RN
 L8 28303 SEA FILE=REGISTRY ABB=ON PLU=ON TRIETHOXYISILYL?/CNS OR
 TRIMETHOXYISILYL?/CNS OR TRIALKOXYISILYL?/CNS
 L9 16263 SEA FILE=REGISTRY ABB=ON PLU=ON L8 AND PMS/CI
 L11 11438 SEA FILE=HCAPLUS ABB=ON PLU=ON L9
 L12 69758 SEA FILE=HCAPLUS ABB=ON PLU=ON L2
 L13 26092 SEA FILE=HCAPLUS ABB=ON PLU=ON L3
 L14 5193 SEA FILE=HCAPLUS ABB=ON PLU=ON L4
 L15 21 SEA FILE=HCAPLUS ABB=ON PLU=ON L5
 L16 1 SEA FILE=HCAPLUS ABB=ON PLU=ON L6
 L17 11438 SEA FILE=HCAPLUS ABB=ON PLU=ON L11 OR (L15 OR L16)
 L18 652 SEA FILE=HCAPLUS ABB=ON PLU=ON L17 AND (L12 OR L13 OR
 L14)
 L19 2 SEA FILE=HCAPLUS ABB=ON PLU=ON L15 AND (L12 OR L13 OR
 L14)
 L20 2 SEA FILE=HCAPLUS ABB=ON PLU=ON L16 OR L19
 L21 10792 SEA FILE=HCAPLUS ABB=ON PLU=ON SILSESIQUOXANES+PFT,NT,OLD
 ,NEW/CT
 L22 534 SEA FILE=HCAPLUS ABB=ON PLU=ON L21 AND (L12 OR L13 OR
 L14)
 L23 178 SEA FILE=HCAPLUS ABB=ON PLU=ON L22 AND POF/RL
 L24 191 SEA FILE=HCAPLUS ABB=ON PLU=ON L18 AND POF/RL
 L25 299 SEA FILE=HCAPLUS ABB=ON PLU=ON L23 OR L24
 L26 13 SEA FILE=HCAPLUS ABB=ON PLU=ON L25 AND POLYMER?/SC,SX
 L28 172 SEA FILE=HCAPLUS ABB=ON PLU=ON L25 AND (POLYMER? OR
 PLASTIC?)/SC,SX
 L29 220445 SEA FILE=HCAPLUS ABB=ON PLU=ON POLYMERIZATION+PFT,NT,OLD,
 NEW/CT
 L30 9 SEA FILE=HCAPLUS ABB=ON PLU=ON L28 AND L29
 L31 23 SEA FILE=HCAPLUS ABB=ON PLU=ON L20 OR L26 OR L30
 L32 111 SEA FILE=HCAPLUS ABB=ON PLU=ON L28 AND (COMPOSITION? OR
 FORMULATION? OR MIXTURE#)
 L33 1 SEA FILE=HCAPLUS ABB=ON PLU=ON L32 AND (HAIL(A)RESIS?
 OR HAILRESIST?)
 L34 1307 SEA FILE=HCAPLUS ABB=ON PLU=ON "IMPACT MODIFIERS"+PFT,NT,
 OLD,NEW/CT
 L35 14553 SEA FILE=HCAPLUS ABB=ON PLU=ON "IMPACT-RESISTANT
 MATERIALS"+PFT,NT,OLD,NEW/CT
 L36 62 SEA FILE=HCAPLUS ABB=ON PLU=ON L18 AND L29
 L37 2 SEA FILE=HCAPLUS ABB=ON PLU=ON L36 AND (L34 OR L35)
 L38 13 SEA FILE=HCAPLUS ABB=ON PLU=ON L18 AND (L34 OR L35)
 L39 14 SEA FILE=HCAPLUS ABB=ON PLU=ON L18 AND (HAIL(A)RESIS?
 OR HAILRESIST? OR IMPACT MODIFIER? OR IMPACT(A)RESISTANT
 MATERIAL? OR IMPACTRESISTANT MATERIAL?)
 L40 34 SEA FILE=HCAPLUS ABB=ON PLU=ON L31 OR L33 OR L37 OR L38
 OR L39
 L42 24 SEA FILE=HCAPLUS ABB=ON PLU=ON L40 AND (1840-2002)/PRY,AY
 ,PY
 L43 QUE ABB=ON PLU=ON METHACRY? OR METHYL METHACRY? OR GLY
 CIDYL METHACRY?
 L44 1667 SEA FILE=HCAPLUS ABB=ON PLU=ON L43 AND L21
 L46 940 SEA FILE=HCAPLUS ABB=ON PLU=ON L44 AND (PLASTIC? OR
 POLYMER?)/SC,SX
 L47 49 SEA FILE=HCAPLUS ABB=ON PLU=ON L46 AND (HAIL(A)RESIS?
 OR HAILRESIST? OR IMPACT MODIFIER? OR IMPACT(A)RESISTANT

MATERIAL? OR IMPACTRESISTANT MATERIAL?)

L48 30 SEA FILE=HCAPLUS ABB=ON PLU=ON L47 AND (1840-2002)/PRY,AY
,PY

L49 50 SEA FILE=HCAPLUS ABB=ON PLU=ON L42 OR L48

L50 32 SEA FILE=HCAPLUS ABB=ON PLU=ON HASSKERL, T?/AU

L51 199 SEA FILE=HCAPLUS ABB=ON PLU=ON NEEB, R?/AU

L52 27 SEA FILE=HCAPLUS ABB=ON PLU=ON SEYOUM, G?/AU

L54 6 SEA FILE=HCAPLUS ABB=ON PLU=ON (L50 OR L51 OR L52) AND
(L46 OR L18)

L55 49 SEA FILE=HCAPLUS ABB=ON PLU=ON L49 NOT L54

=> d 155 1-49 ibib ed abs hitstr hitind

L55 ANSWER 1 OF 49 HCAPLUS COPYRIGHT 2007 ACS on STN

ACCESSION NUMBER: 2004:411760 HCAPLUS

DOCUMENT NUMBER: 140:407883

TITLE: Impact-resistant propylene-ethylene block
copolymer compositions and injection moldings
thereof

INVENTOR(S): Watanabe, Takeshi; Okawa, Kenichi

PATENT ASSIGNEE(S): Sumitomo Chemical Co., Ltd., Japan

SOURCE: Jpn. Kokai Tokkyo Koho, 15 pp.

CODEN: JKXXAF

DOCUMENT TYPE: Patent

LANGUAGE: Japanese

FAMILY ACC. NUM. COUNT: 1

PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
JP 2004143413	A	20040520	JP 2003-208589	20030825

PRIORITY APPLN. INFO.: JP 2002-244967 A 20020826
<--

ED Entered STN: 21 May 2004

AB Title compns., useful for automobile interior, etc., comprise 75-95% propylene-ethylene block copolymer (I) consisting of 60-75% polypropylene block and 25-40% propylene-ethylene random copolymer block, and 5-25% inorg. fillers. Alternatively, the compns. comprise 70-94.8% I, 5-25% inorg. fillers, and 0.2-5% powders consisting of polydiorganosiloxanes 100, SiO₂ 10-150, alkoxy-silane-adhesion promoters having ≥ 1 C1-4 alkoxy, epoxy, NH₂, and/or **methacryloxy** group 0.5-15 parts. Thus, injection moldings comprising AW 191A (I, MFR 10 g/10 min at 230°, isotactic pentad 0.97) 68, polypropylene (MFR 320 g/10 min, isotactic pentad 0.99) 11, and MWHST (talc) 21 parts showed Izod impact strength (JIS-K 7110) 16.8 KJ/m².

IC ICM C08L053-00

ICS C08K003-00; C08L083-04

CC 38-3 (Plastics Fabrication and Uses)

Section cross-reference(s): 37

IT **Impact-resistant materials**

(**impact**-resistant injection moldings containing propylene-ethylene block copolymer and inorg. fillers for automobile interior)

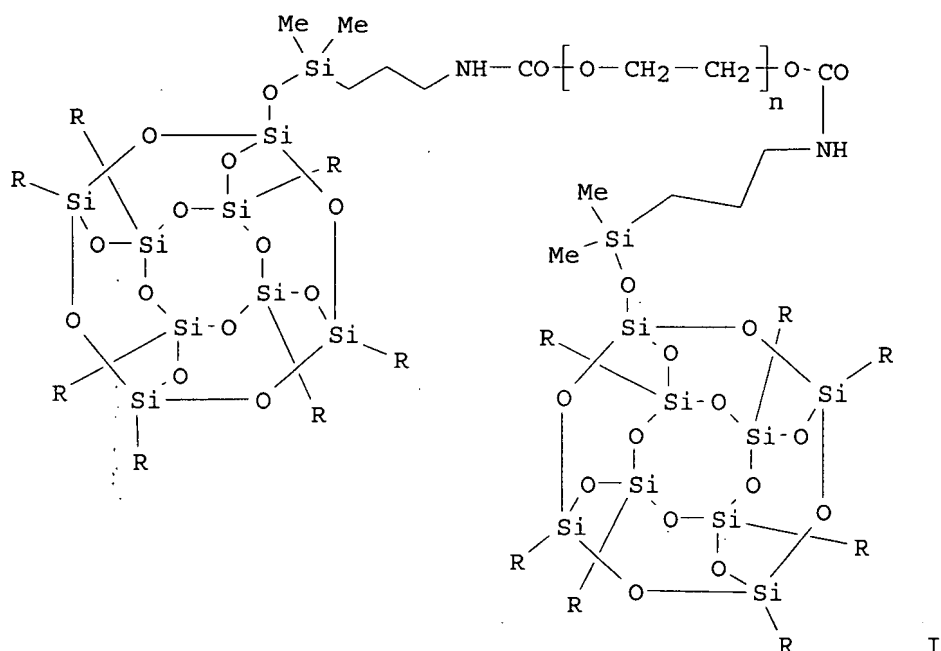
IT **Silsesquioxanes**

(**methacrylate**-, DC4-7081; impact-resistant injection moldings containing propylene-ethylene block copolymer and inorg. fillers for automobile interior)

L55 ANSWER 2 OF 49 HCAPLUS COPYRIGHT 2007 ACS on STN
 ACCESSION NUMBER: 2004:101211 HCAPLUS
 DOCUMENT NUMBER: 140:146684
 TITLE: Preparation and uses of nonionic telechelic
 polymers incorporating polyhedral
 oligosilsesquioxane (POSS)
 INVENTOR(S): Mather, Patrick T.; Kim, Byoung-Suhk; Ge, Qing;
 Liu, Changdeng
 PATENT ASSIGNEE(S): University of Connecticut, USA
 SOURCE: PCT Int. Appl., 35 pp.
 CODEN: PIXXD2
 DOCUMENT TYPE: Patent
 LANGUAGE: English
 FAMILY ACC. NUM. COUNT: 7
 PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 2004011525	A1	20040205	WO 2003-US22898	20030723
<--				
W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NO, NZ, OM, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM, ZW, RW: GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZM, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM, AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IT, LU, MC, NL, PT, RO, SE, SI, SK, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG				
US 2004024098	A1	20040205	US 2003-620644	20030716
<--				
US 7067606	B2	20060627		
AU 2003254106	A1	20040216	AU 2003-254106	20030723
<--				
PRIORITY APPLN. INFO.:			US 2002-399599P	P 20020730
<--				
			US 2003-620644	A 20030716
			US 2003-488590P	P 20030718
			WO 2003-US22898	W 20030723

ED Entered STN: 08 Feb 2004
 GI



AB Amphiphilic telechelics incorporating polyhedral oligosilsesquioxane (POSS) are synthesized by direct urethane linkage between the diol end groups of polyethylene glycol (PEG) homopolymers and the monoisocyanate group of POSS macromers, wherein the telechelic has a formula (I), wherein R is a cyclic hydrocarbon selected from the group of cyclohexyl, cyclopentyl, cyclooctyl, Me, Et, Pr, iso-Pr, Bu, iso-Bu, styryl, vinyl, allyl, ethylphenyl or any aryl, group selected from the group of Ph, biphenyl and naphthyl. The hydrophobicity of the amphiphilic telechelics can be varied by using PEG homopolymers of increasing MW, providing for control over mol. architecture by hydrophilic/hydrophobic balance. A method for synthesizing the amphiphilic telechelic comprises reacting PEG and POSS macromer wherein the monoisocyanate groups of two POSS macromer are directly linked between the diol end groups of PEG. The amphiphilic telechelics are useful as surfactants, thickening agents, additives to plastic such as PMMA (Plexiglass), epoxy adhesives for improved properties.

IT 9011-14-7, Polymethylmethacrylate
(uses of nonionic telechelic polymers incorporating polyhedral oligosilsesquioxane (POSS))

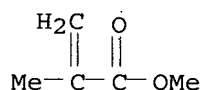
RN 9011-14-7 HCAPLUS

CN 2-Propenoic acid, 2-methyl-, methyl ester, homopolymer (CA INDEX NAME)

CM 1

CRN 80-62-6

CMF C5 H8 O2



IC ICM C08G065-32
ICS C08G018-32
CC 35-8 (Chemistry of Synthetic High Polymers)
Section cross-reference(s): 37, 46, 52
IT **Silsesquioxanes**
(polyether-; uses of nonionic telechelic polymers incorporating polyhedral oligosilsesquioxane (POSS))
IT 9003-20-7, Polyvinylacetate 9003-42-3, Polyethylmethacrylate
9003-53-6D, Polystyrene, sulfonated 9011-14-7,
Polymethylmethacrylate
(uses of nonionic telechelic polymers incorporating polyhedral oligosilsesquioxane (POSS))
REFERENCE COUNT: 3 THERE ARE 3 CITED REFERENCES AVAILABLE FOR
THIS RECORD. ALL CITATIONS AVAILABLE IN THE
RE FORMAT

L55 ANSWER 3 OF 49 HCAPLUS COPYRIGHT 2007 ACS on STN
ACCESSION NUMBER: 2004:100839 HCAPLUS
DOCUMENT NUMBER: 140:146682
TITLE: Synthesis of nonionic telechelic polymers
incorporating polyhedral oligosilsesquioxane and
uses thereof
INVENTOR(S): Mather, Patrick T.; Kim, Byoung-Suhk; Ge, Qing;
Liu, Changdeng
PATENT ASSIGNEE(S): University of Connecticut, USA
SOURCE: U.S. Pat. Appl. Publ., 20 pp.
CODEN: USXXCO
DOCUMENT TYPE: Patent
LANGUAGE: English
FAMILY ACC. NUM. COUNT: 7
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
US 2004024098	A1	20040205	US 2003-620644	20030716
US 7067606	B2	20060627		
WO 2004011525	A1	20040205	WO 2003-US22898	20030723
W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NO, NZ, OM, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM, ZW				
RW: GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZM, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM, AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IT, LU, MC, NL, PT, RO, SE, SI, SK, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG				
AU 2003254106	A1	20040216	AU 2003-254106	20030723
PRIORITY APPLN. INFO.: US 2002-399599P P 20020730				

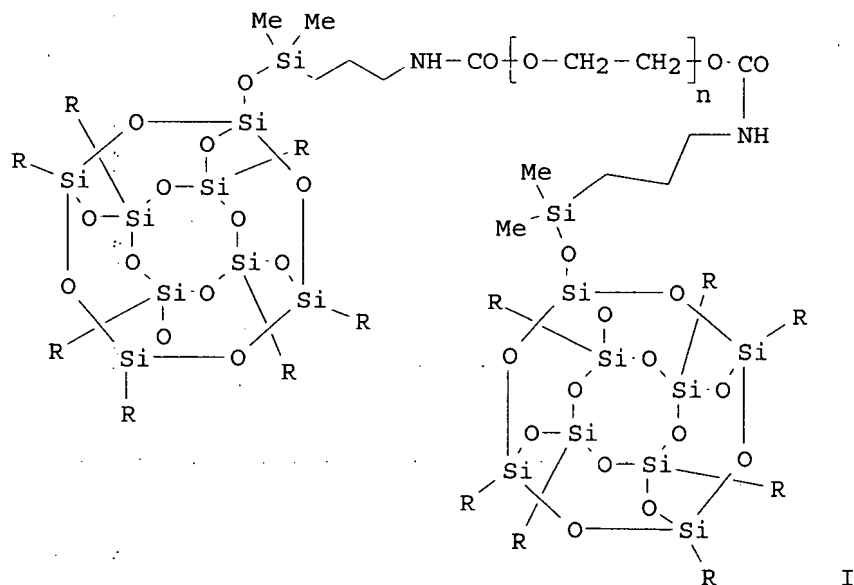
US 2003-620644 A 20030716

US 2003-488590P P 20030718

WO 2003-US22898 W 20030723

ED Entered STN: 08 Feb 2004

GI



AB Amphiphilic telechelics incorporating polyhedral oligosilsesquioxane (POSS) is synthesized by direct urethane linkage between the diol end groups of polyethylene glycol (PEG) homopolymers and the monoisocyanate group of POSS macromers. An amphiphilic telechelic incorporating POSS has the following structure I, wherein R is a cyclic hydrocarbon selected from the group of cyclohexyl, cyclopentyl, cyclooctyl, Me, Et, Pr, iso-Pr, Bu, iso-Bu, styryl, vinyl, allyl, methylphenyl or an aryl group selected from the group of Ph, biphenyl, naphthyl. The hydrophobicity of the amphiphilic telechelics can be varied by using PEG homopolymers of increasing MW, providing for control over mol. architecture by hydrophilic/hydrophobic balance. This amphiphilic telechelics can be used as surfactants, thickening agents, additives to plastic such as PMMA (Plexiglass) and epoxy adhesives for improved properties.

IT 9011-14-7, Polymethylmethacrylate
(uses of nonionic telechelic polymers incorporating polyhedral oligosilsesquioxane)

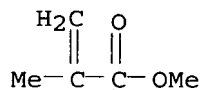
RN 9011-14-7 HCAPLUS

CN 2-Propenoic acid, 2-methyl-, methyl ester, homopolymer (CA INDEX NAME)

CM 1

CRN 80-62-6

CMF C5 H8 O2



IC ICM C08J003-00

INCL 524268000

CC 35-8 (Chemistry of Synthetic High Polymers)

Section cross-reference(s): 37, 46

IT Silsesquioxanes

(polyether-; synthesis of nonionic telechelic polymers incorporating polyhedral oligosilsesquioxane and uses thereof)

IT 9003-20-7, Polyvinylacetate 9003-42-3, Polyethylmethacrylate

9003-53-6D, Polystyrene, sulfonated 9011-14-7,

Polymethylmethacrylate

(uses of nonionic telechelic polymers incorporating polyhedral oligosilsesquioxane)

REFERENCE COUNT: 23 THERE ARE 23 CITED REFERENCES AVAILABLE FOR
THIS RECORD. ALL CITATIONS AVAILABLE IN THE
RE FORMAT

L55 ANSWER 4 OF 49 HCAPLUS COPYRIGHT 2007 ACS on STN

ACCESSION NUMBER: 2004:60375 HCAPLUS

DOCUMENT NUMBER: 140:113247

TITLE: Supported catalysts based on phosphonate-
functionalized siloxanes and metal compoundsINVENTOR(S): Partridge, Martin Graham; Tooze, Robert Paul;
Wilson, John Robert Howe; Sullivan, Alice Caroline

PATENT ASSIGNEE(S): Johnson Matthey Plc, UK

SOURCE: PCT Int. Appl., 16 pp.

CODEN: PIXXD2

DOCUMENT TYPE: Patent

LANGUAGE: English

FAMILY ACC. NUM. COUNT: 1

PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 2004007073	A1	20040122	WO 2003-GB2952	20030709

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W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH,
CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, ES, FI, GB, GD,
GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ,
LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ,
NI, NO, NZ, OM, PG, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK,
SL, SY, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU,
ZA, ZM, ZW

RW: GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZM, ZW, AM, AZ,
BY, KG, KZ, MD, RU, TJ, TM, AT, BE, BG, CH, CY, CZ, DE, DK,
EE, ES, FI, FR, GB, GR, HU, IE, IT, LU, MC, NL, PT, RO, SE,
SI, SK, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR,
NE, SN, TD, TG

AU 2003254435	A1	20040202	AU 2003-254435	20030709
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PRIORITY APPLN. INFO.:	GB 2002-15961	A	20020710
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WO 2003-GB2952	W	20030709
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ED Entered STN: 26 Jan 2004

AB The invention comprises a catalyst composition comprising the reaction product of a phosphonate-functionalized polyorganosiloxane containing at least one P-OR group, where R is hydrogen, an alkyl, cycloalkyl, aryl or alkyl-aryl radical which may be substituted with hydrocarbyl or non-hydrocarbyl substituents or an optionally complexed metal ion, and a compound of a metal selected from the group consisting of titanium, zinc, tin, magnesium, germanium, zirconium, aluminum, hafnium, an alkali metal, alkaline earth metal, rhodium, palladium, platinum, gold and silver. The supporter catalyst is useful in a number of chemical processes, e.g. esterification processes.

IT 442913-78-2P

(supported catalysts based on phosphonate-functionalized siloxanes and metal compds.)

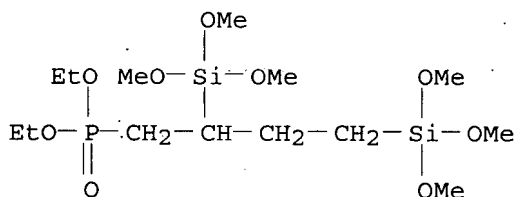
RN 442913-78-2 HCAPLUS

CN Phosphonic acid, [2,4-bis(trimethoxysilyl)butyl]-, diethyl ester, polymer with diethyl [2-(trimethoxysilyl)ethyl]phosphonate (9CI) (CA INDEX NAME)

CM 1

CRN 442913-77-1

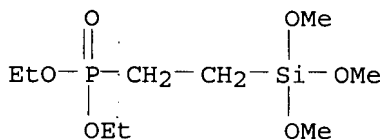
CMF C14 H35 O9 P Si2



CM 2

CRN 20448-87-7

CMF C9 H23 O6 P Si

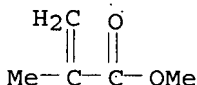


IT 80-62-6, Methyl methacrylate

(supported catalysts based on phosphonate-functionalized siloxanes and metal compds.)

RN 80-62-6 HCAPLUS

CN 2-Propenoic acid, 2-methyl-, methyl ester (CA INDEX NAME)



IC ICM B01J031-02
 ICS B01J031-06; B01J031-12; B01J031-32; B01J031-38
 CC 45-4 (Industrial Organic Chemicals, Leather, Fats, and Waxes)
 Section cross-reference(s): 35, 67
 IT 20448-87-7P **442913-78-2P**
 (supported catalysts based on phosphonate-functionalized siloxanes
 and metal compds.)
 IT **80-62-6**, Methyl methacrylate 85-44-9, Phthalic anhydride
 104-76-7, 2-Ethyl hexanol 107-21-1, Ethylene glycol, reactions
 111-82-0, Methyl laurate 120-61-6, Dimethyl terephthalate
 762-04-9, Diethyl phosphite 2768-02-7, Trimethoxy vinyl silane
 (supported catalysts based on phosphonate-functionalized siloxanes
 and metal compds.)

REFERENCE COUNT: 3 THERE ARE 3 CITED REFERENCES AVAILABLE FOR
 THIS RECORD. ALL CITATIONS AVAILABLE IN THE
 RE FORMAT

L55 ANSWER 5 OF 49 HCAPLUS COPYRIGHT 2007 ACS on STN

ACCESSION NUMBER: 2003:369017 HCAPLUS

DOCUMENT NUMBER: 138:369727

TITLE: Fire-resistant polycarbonate resin compositions
 with good fluidity and impact resistance

INVENTOR(S): Tsuneishi, Hiroshi; Horii, Etsuo; Miyatake, Nobuo

PATENT ASSIGNEE(S): Kanegafuchi Chemical Industry Co., Ltd., Japan

SOURCE: Jpn. Kokai Tokkyo Koho, 16 pp.

CODEN: JKXXAF

DOCUMENT TYPE: Patent

LANGUAGE: Japanese

FAMILY ACC. NUM. COUNT: 1

PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
JP 2003138121	A	20030514	JP 2001-333467	20011030

PRIORITY APPLN. INFO.: JP 2001-333467 20011030

ED Entered STN: 14 May 2003

AB Title compns. comprise (A) polycarbonate resins 100, (B) silicone
 compds. $R_1mR_2nSiO(4-m-n)/2$ 0.1-20, and (C) polysiloxane graft
 copolymers obtained by polymerization of vinyl monomers in the presence of
 organopolysiloxane particles 0.1-20 parts, wherein R_1 = C1-4 aliphatic
 monovalent hydrocarbon; R_2 = C6-24 aromatic monovalent hydrocarbon; and
 $1.1 \leq m + n \leq 1.7$ and $0.4 \leq n/m \leq 2.5$
 integer. Thus, a composition comprising bisphenol A type polycarbonate
 with viscosity average mol. weight 22,000 100, silicone compound obtained from
 methyltrichlorosilane 177, phenyltrichlorosilane 902, and
 trimethylchlorosilane 321 g 2, and polysiloxane graft copolymer
 obtained from octamethylcyclotetrasiloxane, γ -
 acryloyloxypropyldimethoxymethylsilane, and **Me**
methacrylate 1, Adeka Stab HP 10 0.1, Adeka Stab AO 60 0.1,
 and Polyflon FA 500 0.2 parts was kneaded at 270° and
 injection-molded to give a test piece with spiral flow 315 mm, flame
 retardancy (UL-94) V-0, Izod impact resistance 710 J/m.

IC ICM C08L069-00
 ICS C08F283-12; C08K005-42; C08K005-435; C08L083-04; C08L051-08

CC 37-6 (Plastics Manufacture and Processing)

IT **Impact-resistant materials**
 (fire-resistant; fire-resistant polycarbonate resin compns. with

good fluidity and impact resistance)

IT **Silsesquioxanes**
(flame retardants; fire-resistant polycarbonate resin compns. with good fluidity and impact resistance)

IT **Fire-resistant materials**
(**impact**-resistant; fire-resistant polycarbonate resin compns. with good fluidity and impact resistance)

IT 124659-94-5P, γ -Acryloyloxypropyldimethoxymethylsilane-**methyl methacrylate**-octamethylcyclotetrasiloxane graft copolymer 138751-27-6P, Octamethylcyclotetrasiloxane-**methyl methacrylate** graft copolymer 181050-37-3DP, Methyltrichlorosilane-phenyltrichlorosilanehydrolytic copolymer, trimethylsilyl-terminated 434334-90-4DP, Dimethoxydiphenylsilane-M Silicate 51 copolymer, trimethylsilyl-terminated
(flame retardant; fire-resistant polycarbonate resin compns. with good fluidity and impact resistance)

L55 ANSWER 6 OF 49 HCAPLUS COPYRIGHT 2007 ACS on STN

ACCESSION NUMBER: 2003:366815 HCAPLUS

DOCUMENT NUMBER: 138:354785

TITLE: Rubber-modified vinyl polymers and their compositions with good impact resistance

INVENTOR(S): Tone, Koji; Yauchi, Shinichi; Miyatake, Nobuo; Takagi, Akira

PATENT ASSIGNEE(S): Kanegafuchi Chemical Industry Co., Ltd., Japan

SOURCE: Jpn. Kokai Tokkyo Koho, 15 pp.

CODEN: JKXXAF

DOCUMENT TYPE: Patent

LANGUAGE: Japanese

FAMILY ACC. NUM. COUNT: 1

PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
JP 2003137946	A	20030514	JP 2001-338245	20011102

PRIORITY APPLN. INFO.: JP 2001-338245 20011102

ED Entered STN: 14 May 2003

AB The polymers are manufactured by polymerization of vinyl monomers in the presence

of silicone rubber latexes and hollow acrylic rubbers, wherein polymer particles are coaggregated before or during polymerization. Thus, 15 parts **Me methacrylate** was polymerized in the presence of 11.9 parts (as solid) styrene-Bu **methacrylate**-octamethylcyclotetrasiloxane-vinyltriethoxysilane-tetraethoxysilane copolymer latex and 73.1 parts (as solid) Bu acrylate-styrene-allyl **methacrylate** graft copolymer latex while coaggregation, diluted with water, coagulated, dehydrated, and dried to give powder. Then, a test piece containing 100 parts PVC and 6.0 parts of the powder showed Izod impact strength 70 kJ/m² at 23°.

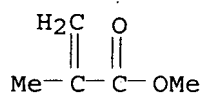
IT **9011-14-7, Methyl methacrylate** homopolymer
(rubber-modified vinyl polymers for compns. with good impact resistance)

RN 9011-14-7 HCAPLUS

CN 2-Propenoic acid, 2-methyl-, methyl ester, homopolymer (CA INDEX NAME)

CM 1

CRN 80-62-6
CMF C5 H8 O2



- IC ICM C08F291-02
ICS C08L051-00; C08L101-00
- CC 37-6 (**Plastics** Manufacture and Processing)
Section cross-reference(s): 35
- ST acrylic silicone rubber modified polymethyl **methacrylate**;
coaggregation acrylic graft polysiloxane **impact**
modifier; PVC acrylic graft polysiloxane impact resistance
- IT Silicone rubber, preparation
Synthetic rubber, preparation
(Bu **methacrylate**-octamethylcyclotetrasiloxane-styrene-
tetraethoxysilane-vinyltriethoxysilane, graft; rubber-modified
vinyl polymers for compns. with good impact resistance)
- IT Acrylic rubber
Synthetic rubber, preparation
(allyl **methacrylate**-Bu acrylate-styrene, graft;
rubber-modified vinyl polymers for compns. with good impact
resistance)
- IT **Silsesquioxanes**
(polysiloxane-silicate-, acrylic, graft, **impact**
modifiers; rubber-modified vinyl polymers for compns. with
good impact resistance)
- IT **Impact modifiers**
(rubber-modified vinyl polymers for compns. with good impact
resistance)
- IT Polysiloxanes, preparation
(silicate-silsesquioxane-, acrylic, graft, **impact**
modifiers; rubber-modified vinyl polymers for compns. with
good impact resistance)
- IT 521074-97-5P, Allyl **methacrylate**-butyl acrylate-butyl
methacrylate-methyl methacrylate
-octamethylcyclotetrasiloxane-styrene-tetraethoxysilane-
vinyltriethoxysilane graft copolymer
(**impact modifiers**; rubber-modified vinyl
polymers for compns. with good impact resistance)
- IT 80-05-7D, 2,2-Bis(4-hydroxyphenyl)propane, polycarbonates 107-13-1D,
Acrylonitrile, polymers with acrylic rubbers and styrene 9002-86-2,
Vinyl chloride homopolymer 9002-86-2D, Vinyl chloride homopolymer,
chlorinated 9003-53-6, Polystyrene 9003-56-9, Acrylonitrile-
butadiene-styrene copolymer 9011-14-7, **Methyl**
methacrylate homopolymer 24936-68-3, Lexan 121; uses
25034-86-0, **Methyl methacrylate**-styrene copolymer
25038-59-9, Poly(ethylene terephthalate), uses 25747-74-4,
Acrylonitrile- α -methylstyrene copolymer 31621-07-5,
Acrylonitrile-N-phenylmaleimide-styrene copolymer 106677-58-1,
Santac AT 05
(rubber-modified vinyl polymers for compns. with good impact
resistance)
- IT 110254-01-8P, Allyl **methacrylate**-butyl acrylate-styrene
graft copolymer 521074-96-4P, Butyl **methacrylate**
-octamethylcyclotetrasiloxane-styrene-tetraethoxysilane-
vinyltriethoxysilane graft copolymer

(rubber; rubber-modified vinyl polymers for compns. with good impact resistance)

L55 ANSWER 7 OF 49 HCAPLUS COPYRIGHT 2007 ACS on STN

ACCESSION NUMBER: 2003:257927 HCAPLUS

DOCUMENT NUMBER: 138:256058

TITLE: Manufacture of graft polymer **impact modifiers** with high productivity, and manufacture of impact-resistant resins containing them

INVENTOR(S): Tatsuta, Atsuo; Hashiba, Atsushi; Takarada, Mitsuhiro; Osawa, Yoshito

PATENT ASSIGNEE(S): Nippon A and L Co., Ltd., Japan

SOURCE: Jpn. Kokai Tokkyo Koho, 8 pp.

CODEN: JKXXAF

DOCUMENT TYPE: Patent

LANGUAGE: Japanese

FAMILY ACC. NUM. COUNT: 1

PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
JP 2003096142	A	20030403	JP 2001-290159	20010921
			<--	
			JP 2001-290159	20010921
			<--	

ED Entered STN: 03 Apr 2003

AB The graft polymers are manufactured by (A) emulsion-polymerizing $R_1Si(OR_2)_3$ and $(R_3SiO)_m$ and/or $R_4O(R_5SiO)_nR_4$ ($R_1, R_3, R_5 = C_1-10$ -hydrocarbyl; $R_2, R_4 = H, C_1-4$ -hydrocarbyl; $m = 3-10$; $n = 2-200$) in the presence of acid catalysts to obtain a polysiloxane latex with average particle size 50-200 nm and viscosity at 25° after extraction $\geq 10,000$ mPa-s, (B) preparing a rubber composite latex with the polysiloxane, and (C) graft-polymerizing radically polymerizable monomers selected from aromatic vinyl compds., vinyl cyanides, and alkyl (meth)acrylates in the presence of the a rubber-siloxane composite latex. Thus, Bu acrylate and allyl **methacrylate** were polymerized in the presence of phenyltriethoxysilane-octamethylcyclotetrasiloxane copolymer latex, further polymerizing with acrylonitrile and styrene, kneaded with SAN resin (230PC), and injection-molded to give a test piece showing notched Izod impact strength 201 MPa and good appearance.

IC ICM C08F283-12

ICS C08F002-22; C08L025-04; C08L033-04; C08L051-08

CC 37-6 (Plastics Manufacture and Processing)

ST **impact modifier** silsesquioxane siloxane acrylic graft; emulsion polymn polysiloxane latex **impact modifier**; phenyltriethoxysilane octamethylcyclotetrasiloxane polysiloxane latex **impact modifier**; acrylic rubber graft siloxane composite impact resistance

IT Polymerization

(emulsion; **impact modifiers** comprising siloxanes and acrylic rubber graft polymers)

IT **Impact-resistant materials**

(**impact modifiers** comprising siloxanes and acrylic rubber graft polymers)

IT Polymer blends

(**impact modifiers** comprising siloxanes and acrylic rubber graft polymers)

IT **Silsesquioxanes**

(polysiloxane-, **impact modifier**; **impact**

- modifiers** comprising siloxanes and acrylic rubber graft polymers)
- IT Polysiloxanes, preparation
(silsesquioxane-, **impact modifier**;
impact modifiers comprising siloxanes and acrylic rubber graft polymers)
- IT 9003-54-7, Acrylonitrile-styrene copolymer
(230PC; **impact modifiers** comprising siloxanes and acrylic rubber graft polymers)
- IT 502697-28-1P, Dimethylsilanediol-diphenylsilanediol-octamethylcyclotetrasiloxane-phenyltriethoxysilane copolymer
(comprised of actual and assumed monomers, **impact modifier**; **impact modifiers** comprising siloxanes and acrylic rubber graft polymers)
- IT 100-42-5D, Styrene, polymers
(high-impact; **impact modifiers** comprising siloxanes and acrylic rubber graft polymers)
- IT 31851-80-6P, Octamethylcyclotetrasiloxane-phenyltriethoxysilane copolymer 106677-58-1P, Acrylonitrile-butadiene-styrene graft copolymer 118687-58-4P, Acrylonitrile-allyl **methacrylate**-butyl acrylate-styrene graft copolymer
(**impact modifier**; **impact modifiers** comprising siloxanes and acrylic rubber graft polymers)
- IT 25034-86-0, Methylmethacrylate-styrene copolymer 25053-09-2, MBS resin 26299-47-8, Acrylonitrile-butyl acrylate-styrene copolymer 32505-24-1, Acrylonitrile-ethylene-propylene-styrene copolymer
(**impact modifiers** comprising siloxanes and acrylic rubber graft polymers)

L55 ANSWER 8 OF 49 HCAPLUS COPYRIGHT 2007 ACS on STN

ACCESSION NUMBER: 2003:15594 HCAPLUS

DOCUMENT NUMBER: 138:74046

TITLE: Fire-resistant thermoplastic resin compositions containing coated-inorganic fillers with high mechanical strength and good extrusion stability

INVENTOR(S): Nishihara, Hajime

PATENT ASSIGNEE(S): Asahi Kasei Corporation, Japan

SOURCE: Jpn. Kokai Tokkyo Koho, 10 pp.

CODEN: JKXXAF

DOCUMENT TYPE: Patent

LANGUAGE: Japanese

FAMILY ACC. NUM. COUNT: 1

PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
JP 2003003077	A	20030108	JP 2001-189928	20010622

PRIORITY APPLN. INFO.: JP 2001-189928 20010622

ED Entered STN: 08 Jan 2003

AB The compns. comprise (A) inorg. fillers coated with Si-containing compds. with average diameter 1-1000 nm (<1000), (B) functional additives, and (C) polymers. Thus, a composition comprising SiO₂ coated with polyether-modified di-Me silicones, di-Me siloxane, and bisphenol A polycarbonate (Calibre 13) was injection-molded to give a test piece with Izod impact strength 590 J/m.

IC ICM C08L101-00

ICS C04B026-18; C08K009-06; C08L069-00; C04B014-04; C04B014-30;

C04B111-28

CC 37-6 (**Plastics** Manufacture and Processing)
 IT Fire-resistant materials
 Impact-resistant materials
 (fire-resistant thermoplastic resins containing siloxane-coated inorg. fillers with high mech. strength and good extrusion stability)
 IT Polysiloxanes, preparation
 Silsesquioxanes
 (fireproofing agent; fire-resistant thermoplastic resins containing siloxane-coated inorg. fillers with high mech. strength and good extrusion stability)
 IT **Silsesquioxanes**
 (polysiloxane-, fireproofing agent; fire-resistant thermoplastic resins containing siloxane-coated inorg. fillers with high mech. strength and good extrusion stability)
 IT 75-78-5, Dimethyldichlorosilane 999-97-3, Hexamethyldisilazane 22642-57-5, **Methacryloxysilane**
 (coupler, coating silica surface with; fire-resistant thermoplastic resins containing siloxane-coated inorg. fillers with high mech. strength and good extrusion stability)

L55 ANSWER 9 OF 49 HCAPLUS COPYRIGHT 2007 ACS on STN

ACCESSION NUMBER: 2002:944791 HCAPLUS

DOCUMENT NUMBER: 138:25356

TITLE: Fireproof resin compositions, their manufacture and moldings

INVENTOR(S): Komori, Kenji; Matsumoto, Hideki; Yamanaka, Toru

PATENT ASSIGNEE(S): Toray Industries, Inc., Japan

SOURCE: Jpn. Kokai Tokkyo Koho, 17 pp.

CODEN: JKXXAF

DOCUMENT TYPE: Patent

LANGUAGE: Japanese

FAMILY ACC. NUM. COUNT: 1

PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
JP 2002356600	A	20021213	JP 2002-88863	20020327

PRIORITY APPLN. INFO.: JP 2001-93277 A 20010328
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OTHER SOURCE(S): MARPAT 138:25356

ED Entered STN: 13 Dec 2002

AB Title compns., also having flowability, impact resistance, and thermal stability, consist of 100 parts thermoplastic blends comprising rubber-modified aromatic vinyl compound (AV) polymers 1-98, AV-based polymers 1-98, polycarbonates 1-98, and thermoplastic resins 0-97%; 1-30 parts P fire retardants, 0.001-5 parts inorg. acids and/or organic acid (anhydrides), 0.1-20 parts phenolic and/or phenoxy resins. A composition comprising ABS graft copolymer 20, acrylonitrile-styrene copolymer 20, Iupilon S 3000 60, PX 200 15, maleic anhydride 2, and PR 53195 5 parts was kneaded and molded into a test piece with UL 94 test V-0, ASTM D 256-56A toughness 102 J/m, ASTM D 648 heat resistance 86 °, melt flow rate (250°, 98-N load, 10 min) 178 g/10 min, and residence stability 97% after 1 h at 250°.

IC ICM C08L051-04

ICS C08J005-00; C08K003-00; C08K005-00; C08K005-521; C08L025-04;
 C08L061-06; C08L063-04; C08L069-00; C08L071-10; C08L101-00

CC 37-6 (**Plastics** Manufacture and Processing)IT **Impact-resistant materials**

(fire- and heat-resistant; acid (anhydride)- and phenolic (or phenoxy) resin-containing fireproof thermoplastic resin compns. with thermal stability and toughness)

IT **Silsesquioxanes**

(methacrylate-, DC 4-7081; acid (anhydride)- and phenolic (or phenoxy) resin-containing fireproof thermoplastic resin compns. with thermal stability and toughness)

L55 ANSWER 10 OF 49 HCAPLUS COPYRIGHT 2007 ACS on STN

ACCESSION NUMBER: 2002:747897 HCAPLUS

DOCUMENT NUMBER: 137:263820

TITLE: Polycarbonate compositions with good heat stability and improved reflection properties for reflectors

INVENTOR(S): Ishii, Kazuhiko; Nakajima, Hirohi

PATENT ASSIGNEE(S): Mitsubishi Engineering-Plastic Corporation, Japan

SOURCE: Jpn. Kokai Tokkyo Koho, 9 pp.

CODEN: JKXXAF

DOCUMENT TYPE: Patent

LANGUAGE: Japanese

FAMILY ACC. NUM. COUNT: 1

PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
JP 2002284978	A	20021003	JP 2001-86478	20010323

PRIORITY APPLN. INFO.:

JP 2001-86478 20010323

ED Entered STN: 03 Oct 2002

AB The composition comprises (a) 100 parts aromatic polycarbonate, (b) 3-30 parts titanium oxide and (c) 0.005-1 parts fluorescent brightener. Thus, 100 parts Lupilon S 3000 [poly(4,4'-isopropylidenediphenyl carbonate)] was mixed with titanium dioxide (Tipaque PC 3) 14 and Hakkol PSR (fluorescent brightener) 0.03 parts and molded, showing reflectivity (400 mm) 57 initially, and 57 after ageing at 100° for 500 h and yellowing index 1.8.

IC ICM C08L069-00

ICS C08J005-18; C08K003-22; C08K005-00; C08L069-00; C08L101-00

CC 37-6 (Plastics Manufacture and Processing)

Section cross-reference(s): 74

IT Acrylic rubber

(Bu acrylate-Me methacrylate, graft, Paraloid EXL 2315, **impact modifiers**; polycarbonate compns. with good heat stability and improved reflection properties for reflectors)

IT **Silsesquioxanes**

(Me Ph, SH 6018, fireproofing agents; polycarbonate compns. with good heat stability and improved reflection properties for reflectors)

IT Silicone rubber, uses

(acrylic, graft, Metablen SRK 200, **impact modifiers**; polycarbonate compns. with good heat stability and improved reflection properties for reflectors)

IT Fire-resistant materials

Fireproofing agents

Fluorescent brighteners

Heat-resistant materials

Impact modifiers

Impact-resistant materials

Optical reflectors

(polycarbonate compns. with good heat stability and improved reflection properties for reflectors)

IT Acrylic rubber

(siloxane-, graft, Metablen SRK 200, **impact****modifiers**; polycarbonate compns. with good heat stability and improved reflection properties for reflectors)IT 111768-67-3, Butyl acrylatemethyl **methacrylate** graft copolymer(rubber, **impact modifiers**; polycarbonate

compns. with good heat stability and improved reflection properties for reflectors)

L55 ANSWER 11 OF 49 HCAPLUS COPYRIGHT 2007 ACS on STN

ACCESSION NUMBER: 2002:615733 HCAPLUS

DOCUMENT NUMBER: 137:174998

TITLE: Dental and medical polymer composites and compositions

INVENTOR(S): Vallittu, Pekka; Lassila, Lippo; Skrifvars, Mikael; Viljanen, Eeva; Yli-Urpo, Antti

PATENT ASSIGNEE(S): Finland

SOURCE: PCT Int. Appl., 30 pp.

CODEN: PIXXD2

DOCUMENT TYPE: Patent

LANGUAGE: English

FAMILY ACC. NUM. COUNT: 1

PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 2002062901	A1	20020815	WO 2002-FI87	20020206
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WO 2002062901	A8	20031113		
W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NO, NZ, OM, PH, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VN, YU, ZA, ZM, ZW				
RW: GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZM, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM, AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG				
CA 2437622	A1	20020815	CA 2002-2437622	20020206
<--				
AU 2002231823	A1	20020819	AU 2002-231823	20020206
<--				
EP 1368430	A1	20031210	EP 2002-711891	20020206
<--				
R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, LV, FI, RO, MK, CY, AL, TR				
BR 2002007480	A	20040810	BR 2002-7480	20020206
<--				
JP 2004525216	T	20040819	JP 2002-563245	20020206
<--				
CN 1643073	A	20050720	CN 2002-805903	20020206
<--				
US 2004097627	A1	20040520	US 2004-467080	20040107
<--				
PRIORITY APPLN. INFO.:			FI 2001-222	A 20010206

<--
 US 2001-266476P P 20010206
 <--
 WO 2002-FI87 W 20020206
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ED Entered STN: 16 Aug 2002

AB The invention relates to polymerizable multifunctional polymer composites and compns., which are suitable for dental and medical applications, such as dental prostheses, filling materials, implants and the like. It also relates to a method for the manufacture of such polymerizable multifunctional polymer composites and compns., and to the use of said multifunctional polymer composites and compns. in dental and medical applications. A multifunctional polymer composite or composition is manufactured from 30-99% of a monomer mixture containing

30-99% of a dendrimer or a combination of dendrimers and 1-70% of a reactive solvent or a combination of reactive solvents, and 0.1-70% of a nanofiller (an organic, inorg., or hybrid nanofiller). For example, a hyperbranched polymer with methacrylic end-groups (HBP-1, dendrimer made from pentaerythritol, 1,2,4-benzenetricarboxylic anhydride, glycidyl methacrylate and methacrylic anhydride) Me methacrylate (MMA), camphorquinone (CQ) and 2-(N,N-dimethylamino)ethyl methacrylate (DMA EMA) were mixed in 3 different weight ratios at room temperature. The mixts. were stored in a closed container in refrigerator at a temperature < 10° and left to stand for one day to ensure complete mixing of the components. Disc shaped samples (diameter 5.5 mm, thickness 0.75 mm) were polymerized with blue light (400-520 nm) for 40 s. Degree of conversion of multifunctional composites were 56.2, 64.2 and 65.5% for samples containing 78.4, 76.0, and 73.6% HBP-1, resp.

IT 9011-14-7, Poly(methyl methacrylate)
 (nanofiller; dental and medical polymer composites containing monomer, dendrimer, reactive solvent, and nanofiller)

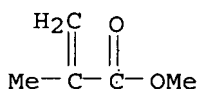
RN 9011-14-7 HCAPLUS

CN 2-Propenoic acid, 2-methyl-, methyl ester, homopolymer (CA INDEX NAME)

CM 1

CRN 80-62-6

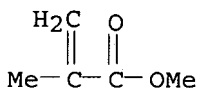
CMF C5 H8 O2



IT 80-62-6, Methyl methacrylate
 (reactive solvent; dental and medical polymer composites containing monomer, dendrimer, reactive solvent, and nanofiller)

RN 80-62-6 HCAPLUS

CN 2-Propenoic acid, 2-methyl-, methyl ester (CA INDEX NAME)



IC ICM C08L101-02

ICS C08L101-12; A61K006-083; A61L027-00
CC 63-7 (Pharmaceuticals)
Section cross-reference(s): 37
IT Antimicrobial agents
Antioxidants
Bending strength
Coloring materials
Density
Drugs
Plasticizers
Polymerization
Polymerization catalysts
(dental and medical polymer composites containing monomer, dendrimer,
reactive solvent, and nanofiller)
IT Glass, biological studies
Silica gel, biological studies
Silicates, biological studies
Silsesquioxanes
(nanofillers; dental and medical polymer composites containing monomer,
dendrimer, reactive solvent, and nanofiller)
IT Polymerization
(photopolymn.; dental and medical polymer composites containing
monomer, dendrimer, reactive solvent, and nanofiller)
IT 9011-14-7, Poly(methyl methacrylate) 25721-76-0,
Polyethylene glycol dimethacrylate 25852-47-5, Polyethylene glycol
dimethacrylate
(nanofiller; dental and medical polymer composites containing monomer,
dendrimer, reactive solvent, and nanofiller)
IT 80-62-6, Methyl methacrylate 97-63-2, Ethyl methacrylate
97-88-1, Butyl methacrylate 2210-28-8, Propyl methacrylate
(reactive solvent; dental and medical polymer composites containing
monomer, dendrimer, reactive solvent, and nanofiller)
REFERENCE COUNT: 5 THERE ARE 5 CITED REFERENCES AVAILABLE FOR
THIS RECORD. ALL CITATIONS AVAILABLE IN THE
RE FORMAT

L55 ANSWER 12 OF 49 HCAPLUS COPYRIGHT 2007 ACS on STN
ACCESSION NUMBER: 2002:606473 HCAPLUS
DOCUMENT NUMBER: 137:141309
TITLE: Halogen-free flame-retardant thermoplastic resin
compositions
INVENTOR(S): Kawamura, Takashi
PATENT ASSIGNEE(S): Dainippon Ink and Chemicals, Inc., Japan
SOURCE: Jpn. Kokai Tokkyo Koho, 12 pp.
CODEN: JKXXAF
DOCUMENT TYPE: Patent
LANGUAGE: Japanese
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
JP 2002226684	A	20020814	JP 2001-156850	20010525
			<--	
PRIORITY APPLN. INFO.:			JP 2000-362781	A 20001129
			<--	

ED Entered STN: 14 Aug 2002
AB The compns., useful for elec. and electronic components, automobile
parts, machinery parts, etc., contain (A) polyesters, (B) aromatic resins
selected from novolak phenolic resins, poly(phenylene ethers) (PPEs),

and poly(phenylene sulfides), (C) phosphate esters, and (D) P-containing organic N compds. or S-containing or organic N compds. Thus, a composition containing

PBT 38.5, YPX 100L (PPE) 16.5, PX 200 (phosphate ester) 15, Melapur 200/70 (melamine polyphosphate) 15, and glass fibers 15% was injection-molded to give test pieces showing UL-94 flame retardance rating V-0, flexural strength 105 MPa, and Izod impact strength 35 J/m.

IC ICM C08L067-00

ICS C08K003-00; C08K005-42; C08K005-521; C08L025-04; C08L061-08; C08L071-12; C08L081-02; C08L083-06; C08L085-02

CC 37-6 (Plastics Manufacture and Processing)

Section cross-reference(s): 38

IT Silsesquioxanes

(methacrylate-, DC 4-7081, additive; halogen-free flame-retardant thermoplastic resin compns. containing phosphates and P- or S-containing organic N compds.)

IT Impact modifiers

(oxazoly- containing styrene polymers; halogen-free flame-retardant thermoplastic resin compns. containing phosphates and P- or S-containing organic N compds.)

IT 30174-74-4, RPS 1005

(impact modifier; halogen-free flame-retardant thermoplastic resin compns. containing phosphates and P- or S-containing organic N compds.)

L55 ANSWER 13 OF 49 HCAPLUS COPYRIGHT 2007 ACS on STN

ACCESSION NUMBER: 2002:566337 HCAPLUS

DOCUMENT NUMBER: 137:110310

TITLE: Halogen-free fire-, impact-, and heat-resistant thermoplastic resin compositions with good laser markability, and their moldings

INVENTOR(S): Mitsui, Satoshi; Tanaka, Hidenori; Kitano, Kozo

PATENT ASSIGNEE(S): Toray Industries, Inc., Japan

SOURCE: Jpn. Kokai Tokkyo Koho, 11 pp.

CODEN: JKXXAF

DOCUMENT TYPE: Patent

LANGUAGE: Japanese

FAMILY ACC. NUM. COUNT: 1

PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
JP 2002212368	A	20020731	JP 2001-13355	20010122

PRIORITY APPLN. INFO.: JP 2001-13355 20010122

OTHER SOURCE(S): MARPAT 137:110310

ED Entered STN: 31 Jul 2002

AB Title compns. contain (A) graft copolymers manufactured by grafting 20-80 parts mixts. of aromatic vinyl monomers 40-90, cyanovinyl monomers 10-60, and other copolymerizable vinyl monomers 0-80% onto 20-80 parts rubbers, (B) copolymers of aromatic vinyl monomers 40-90, cyanovinyl monomers 10-60, other copolymerizable vinyl monomers 0-80%, (C) (R1O)kPO(OR2)m[[OXOPO(OR3)]n(OR4)]3-k-m [X = C6-22 arylene; R1-R4 = (alkyl-substituted) Ph; n ≥ 0; k, m = 0-2; (k + m) = 0-2] 1-30, and (D) carbon black 0.0001-0.5 and/or Fe3O4 0.001-5 parts, wherein the total of copolymers A and B is 100 parts and the weight ratio of A:B = (10-50):(50-90). Thus, a molding comprising styrene- and acrylonitrile-grafted polybutadiene (intrinsic viscosity 0.48 dL/g)

24, 70:30 styrene-acrylonitrile copolymer (intrinsic viscosity 0.73 dL/g) 76, PX 200 [1,3-phenylenetetraakis(2,6-dimethylphenyl)phosphate] 10, and carbon black 0.05 part showed UL-94 flammability rating V-2, notched Izod impact strength 110 J/m, and heat resistance 76°.

IC ICM C08L025-12

ICS B41M005-26; C08J005-00; C08K003-04; C08K003-22; C08K005-521;
C08L025-12; C08L051-04; C08L083-04

CC 38-3 (Plastics Fabrication and Uses)

Section cross-reference(s): 37

IT Fire-resistant materials

Fireproofing agents

Impact-resistant materials

Lasers

Marking

(halogen-free fire-, impact-, and heat-resistant thermoplastic resin compns. with good laser markability, and their moldings)

IT Silsesquioxanes

(methacrylate-, DC4-7081, fireproofers; halogen-free fire-, impact-, and heat-resistant thermoplastic resin compns. with good laser markability, and their moldings)

L55 ANSWER 14 OF 49 HCAPLUS COPYRIGHT 2007 ACS on STN

ACCESSION NUMBER: 2002:503729 HCAPLUS

DOCUMENT NUMBER: 137:79667

TITLE: Modified phenolic resin-containing fireproofed polycarbonate compositions and formed materials therefrom

INVENTOR(S): Koyama, Masashi; Tamai, Akiyoshi; Yamauchi, Koji

PATENT ASSIGNEE(S): Toray Industries, Inc., Japan

SOURCE: Jpn. Kokai Tokkyo Koho, 12 pp.

CODEN: JKXXAF

DOCUMENT TYPE: Patent

LANGUAGE: Japanese

FAMILY ACC. NUM. COUNT: 1

PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
JP 2002188001	A	20020705	JP 2000-386250	20001220

PRIORITY APPLN. INFO.: JP 2000-386250 20001220

OTHER SOURCE(S): MARPAT 137:79667

ED Entered STN: 05 Jul 2002

AB The compns., satisfying pH ≤7.5 (measuring condition is detailed), comprise (A) polycarbonates 10-98, (B) rubber-reinforced styrene (I) resins 2-90 [suitably comprising (10-100):(0-90) (%) aromatic vinyl monomer-grafted rubbers [pH ≤7.5 (as 10 % aqueous slurry)] and aromatic vinyl (co)polymers], (C) P-based fireproofing agents 1-30, and (D) modified phenolic resins [(R1O)R2C6H2CH2]n [R1 = C1-10 alkyl, aryl, allyl, glycidyl, C:OR (R = C1-9 alkyl, aryl); R2 = H, C1-5 alkyl] 0.1-20 parts, and optionally contain (E) 0.01-1 part acids (anhydrides) and (F) 0.01-3 parts fluoropolymers and/or silicone compds. Thus, a composition comprising Iupilon S 3000 (a polycarbonate) 60, I- and acrylonitrile (II)-grafted butadiene rubber (pH 3.0) 20, I-II copolymer 20, PX 200 (an aromatic bisphosphate) 20, EPPN 201H (a modified phenolic resin) 5, maleic anhydride 0.2, and Polyflon F 201 (polytetrafluoroethylene) 0.5 part was pelletized and injection molded to give a specimen satisfying UL 94 fire resistance rating V2, ΔΔE* (color difference before and after 100-h exposure to

xenon light) 2.1, and good residence stability.

IC ICM C08L069-00
ICS C08J005-00; C08K005-00; C08K005-521; C08L025-04; C08L027-12;
C08L051-04; C08L061-14; C08L083-04

CC 37-6 (Plastics Manufacture and Processing)
Section cross-reference(s): 38

IT **Impact-resistant materials**
(heat-resistant, light-resistant; phosphate-fireproofed heat- and impact-resistant polycarbonate compns. containing modified phenolic resins and pH controllers)

IT **Heat-resistant materials**
(**impact**-resistant, light-resistant; phosphate-fireproofed heat- and impact-resistant polycarbonate compns. containing modified phenolic resins and pH controllers)

IT **Silsesquioxanes**
(**methacrylate**-, drip inhibitors; phosphate-fireproofed heat- and impact-resistant polycarbonate compns. containing modified phenolic resins and pH controllers)

IT 9003-54-7P, Acrylonitrile-styrene copolymer 106677-58-1P, Acrylonitrile-butadiene-styrene graft copolymer
(**impact modifiers**; phosphate-fireproofed heat- and impact-resistant polycarbonate compns. containing modified phenolic resins and pH controllers)

L55 ANSWER 15 OF 49 HCAPLUS COPYRIGHT 2007 ACS on STN

ACCESSION NUMBER: 2002:63593 HCAPLUS
DOCUMENT NUMBER: 136:103238
TITLE: Flame-retardant resin compositions, their manufacture, and flame-retardant moldings
INVENTOR(S): Matsumoto, Hideki; Tamai, Akiyoshi; Yamauchi, Koji
PATENT ASSIGNEE(S): Toray Industries, Inc., Japan
SOURCE: Jpn. Kokai Tokkyo Koho, 15 pp.
CODEN: JKXXAF
DOCUMENT TYPE: Patent
LANGUAGE: Japanese
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
JP 2002020565	A	20020123	JP 2000-203010	20000705

PRIORITY APPLN. INFO.: JP 2000-203010 20000705
<--

OTHER SOURCE(S): MARPAT 136:103238

ED Entered STN: 23 Jan 2002

AB The compns., useful for mech. parts, elec. and electronic parts, automobile parts, etc., comprise 55-85 volume% styrene polymers as dispersed phases and 15-45 volume% thermoplastic resins (showing weight decrease <80% in a heating test at 600° in air, temperature rising rate 40°/min) as matrix phases. Thus, 65 volume% of a 40:60 mixture of ABS graft copolymer and acrylonitrile-styrene copolymer was kneaded with 35 volume% of a 60:40 mixture of a polycarbonate (Mw 22,000, weight decrease 74% at 600°) and a polycarbonate (Mw 2,000, weight decrease 76% at 600°), extruded, and injection-molded to give test pieces showing UL 94 flame retardance rating HB, impact resistance 120 J/m, and deflection temperature under 1.82 MPa load 95°.

IC ICM C08L025-00
ICS C08J003-20; C08J005-00; C08K005-521; C08L055-02; C08L069-00;

F16H055-06; C08L025-00; C08L087-00; C08L027-12; C08L083-04
CC 37-6 (**Plastics** Manufacture and Processing)
Section cross-reference(s): 38
IT **Impact-resistant materials**
(heat-resistant; flame-retardant thermoplastic resin compns. and their moldings)
IT **Heat-resistant materials**
(**impact**-resistant; flame-retardant thermoplastic resin compns. and their moldings)
IT **Silsesquioxanes**
(**methacrylate**-, DC 4-7081, flame retardant; flame-retardant thermoplastic resin compns. and their moldings)

L55 ANSWER 16 OF 49 HCAPLUS COPYRIGHT 2007 ACS on STN
ACCESSION NUMBER: 2001:732593 HCAPLUS
DOCUMENT NUMBER: 136:38140
TITLE: Increase of photoluminescence from fullerene-doped polymers under laser irradiation
AUTHOR(S): Li, G. Z.; Minami, N.; Ichio, Y.
CORPORATE SOURCE: National Institute of Materials and Chemical Research AIST, MITI, Tsukuba, 305-8565, Japan
SOURCE: Polymer Engineering and Science (2001), 41(9), 1580-1588
CODEN: PYESAZ; ISSN: 0032-3888
PUBLISHER: Society of Plastics Engineers
DOCUMENT TYPE: Journal
LANGUAGE: English

ED Entered STN: 08 Oct 2001

AB Photoluminescence (PL) from fullerene (C60 and C70)-doped polymers such as poly(Me methacrylate) (PMMA), polystyrene (PS), poly(Me Ph silane) (PMPS) and poly(Ph silsesquioxane) (PPSQ) increases gradually under laser irradiation in air (but not in vacuum and in nitrogen) and eventually becomes visible to the naked eye. Concomitantly, the PL peak is broadened and, in most cases, blue-shifted. No such PL increases are observed for pure C60 films made by vacuum vapor deposition and pure polymer films. Among the polymers used, fullerene-doped PMMA has the greatest PL increase after several hours of laser irradiation and fullerene-doped PMPS has the highest rate of PL increase at the initial stage of the laser irradiation. To gain an insight into the mechanism of the PL increase, laser-irradiated fullerene-doped PMMA samples were analyzed by UV-Vis spectrophotometer, FT-IR, mass spectrometry, GPC and NMR. The results show that the PL increase can be attributed to C60On-polymer (or C70On-polymer) and oxidized fullerene-polymer adducts formed by some laser-induced photochem. reactions among fullerenes, oxygen and polymers.

IT **9011-14-7, PMMA**
(increase of photoluminescence from fullerene-doped polymers under laser irradiation)

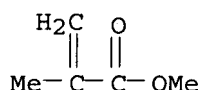
RN 9011-14-7 HCAPLUS

CN 2-Propenoic acid, 2-methyl-, methyl ester, homopolymer (CA INDEX NAME)

CM 1

CRN 80-62-6

CMF C5 H8 O2



CC 36-5 (Physical Properties of Synthetic High Polymers)

Section cross-reference(s): 73

IT Polysilanes

Silsesquioxanes

(increase of photoluminescence from fullerene-doped polymers under laser irradiation)

IT 9003-53-6, Polystyrene 9011-14-7, PMMA 31324-77-3

51350-55-1, Poly(phenyl silsesquioxane) 76188-55-1,

Dichloromethylphenylsilane homopolymer, sru

(increase of photoluminescence from fullerene-doped polymers under laser irradiation)

REFERENCE COUNT: 14 THERE ARE 14 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L55 ANSWER 17 OF 49 HCAPLUS COPYRIGHT 2007 ACS on STN

ACCESSION NUMBER: 2001:644547 HCAPLUS

DOCUMENT NUMBER: 135:196444

TITLE: Molding method with good pattern transferability, mold for it, and optical moldings and magnetic recording substrates manufactured with it

INVENTOR(S): Hayashi, Masahiko; Naruse, Fumihiro

PATENT ASSIGNEE(S): Nippon Zeon Co., Ltd., Japan

SOURCE: Jpn. Kokai Tokkyo Koho, 9 pp.

CODEN: JKXXAF

DOCUMENT TYPE: Patent

LANGUAGE: Japanese

FAMILY ACC. NUM. COUNT: 1

PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
JP 2001239556	A	20010904	JP 2000-54029	20000229

PRIORITY APPLN. INFO.: JP 2000-54029 20000229

ED Entered STN: 04 Sep 2001

AB The moldings, useful for optical disks, etc., are manufactured using a mold that has a thermal insulator layer at least in a part of a cavity wall and a mirror cavity surface part with average roughness (Ra) ≤ 0.1 μm and maximum height (Rmax) ≤ 1.0 μm . Thus, hydrogenated 8-ethyltetracyclo[4.4.12,5.17,10.0]-3-dodecene-tricyclo[4.3.12,5.0]deca-3,7-diene copolymer was injection-molded in a mold (Ra 0.01 μm , Rmax 0.1 μm) having a vapor-deposition-polymerized polyimide layer and a V-shape stamper to manufacture a light guide plate.

IT 9011-14-7, Sumipex MG 5

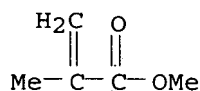
(MG 5; molding method with good pattern transferability for optical moldings and magnetic recording substrates)

RN 9011-14-7 HCAPLUS

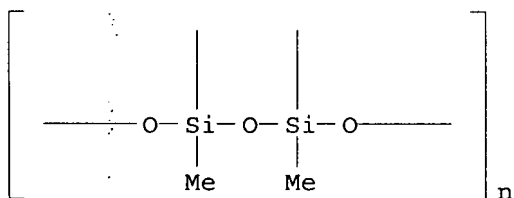
CN 2-Propenoic acid, 2-methyl-, methyl ester, homopolymer (CA INDEX NAME)

CM 1

CRN 80-62-6
CMF C5 H8 O2



IT 153315-80-1, Tospearl 145
(beads; molding method with good pattern transferability for optical moldings and magnetic recording substrates)
RN 153315-80-1 HCAPLUS
CN Poly[(1,3-dimethyl-1,3:1,3-disiloxanediyldiene)-1,3-bis(oxy)] (CA INDEX NAME)



IC ICM B29C045-37
ICS B29C033-38; B29K045-00; B29L011-00; B29L031-34
CC 38-2 (Plastics Fabrication and Uses)
Section cross-reference(s): 73
IT Silsesquioxanes
(beads; molding method with good pattern transferability for optical moldings and magnetic recording substrates)
IT Polymerization
(vapor-deposition, thermal insulation layers with; molding method with good pattern transferability for optical moldings and magnetic recording substrates)
IT 9011-14-7, Sumipex MG 5
(MG 5; molding method with good pattern transferability for optical moldings and magnetic recording substrates)
IT 25498-03-7, Methyltrimethoxysilane homopolymer 153315-80-1, Tospearl 145
(beads; molding method with good pattern transferability for optical moldings and magnetic recording substrates)

L55 ANSWER 18 OF 49 HCAPLUS COPYRIGHT 2007 ACS on STN

ACCESSION NUMBER: 2001:517718 HCAPLUS

DOCUMENT NUMBER: 135:108146

TITLE: Core-shell organic and inorganic composites, their manufacture and compositions

INVENTOR(S): Kobayashi, Koji; Kasahara, Hidemitsu

PATENT ASSIGNEE(S): Maruo Calcium Co., Ltd., Japan

SOURCE: Jpn. Kokai Tokkyo Koho, 16 pp.

CODEN: JKXXAF

DOCUMENT TYPE: Patent

LANGUAGE: Japanese

FAMILY ACC. NUM. COUNT: 1

PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
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JP 2001192585

A

20010717

JP 2000-325034

20001025

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PRIORITY APPLN. INFO.:

JP 1999-308318

A 19991029

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ED Entered STN: 18 Jul 2001

AB Title composites, useful to prepare plastic films with blocking and scratch resistance, consist of organic polymer (A1) shells and inorg. compound (selected from Ca phosphate, K titanate, MgSO₄, Ca silicate, Al borate, SiO₂, TiO₂, and Al₂O₃)-containing inorg. particle (A2) cores with A1 and/or A2 containing organoalkoxysilanes. Stirring Ca phosphate-coated Ca phosphate particles and MeSi(OMe)₃ in water, heating to 50-52°, dropwise adding PMMA emulsion over 1 h, and aging for 1 h gave composite particles, which were mixed with a polypropylene-based composition, extruded, and drawn or molded to form a film with good blocking and scratch resistance or to form a molding with high mech. strength.

IT 9011-14-7P, PMMA 26936-30-1P, Methyl methacrylate-3-(trimethoxysilyl)propyl methacrylate copolymer 59765-49-0P, Acrylic acid-ethyl acrylate-3-(trimethoxysilyl)propyl methacrylate copolymer 81503-75-5P, 2-Hydroxyethyl methacrylate-methyl methacrylate-3-(trimethoxysilyl)propyl methacrylate copolymer (shell; manufacture of alkoxysilane-containing vinyl resin-coated inorg. composite particles as modifiers for plastic films or moldings)

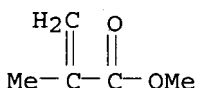
RN 9011-14-7 HCAPLUS

CN 2-Propenoic acid, 2-methyl-, methyl ester, homopolymer (CA INDEX NAME)

CM 1

CRN 80-62-6

CMF C5 H8 O2



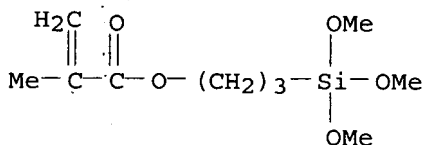
RN 26936-30-1 HCAPLUS

CN 2-Propenoic acid, 2-methyl-, methyl ester, polymer with 3-(trimethoxysilyl)propyl 2-methyl-2-propenoate (CA INDEX NAME)

CM 1

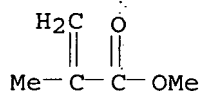
CRN 2530-85-0

CMF C10 H20 O5 Si



CM 2

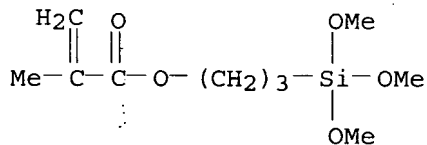
CRN 80-62-6
CMF C5 H8 O2



RN 59765-49-0 HCAPLUS
CN 2-Propenoic acid, 2-methyl-, 3-(trimethoxysilyl)propyl ester, polymer with ethyl 2-propenoate and 2-propenoic acid (9CI) (CA INDEX NAME)

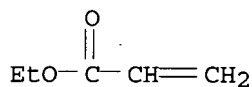
CM 1

CRN 2530-85-0
CMF C10 H20 O5 Si



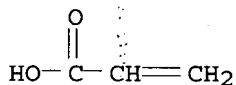
CM 2

CRN 140-88-5
CMF C5 H8 O2



CM 3

CRN 79-10-7
CMF C3 H4 O2



RN 81503-75-5 HCAPLUS
CN 2-Propenoic acid, 2-methyl-, 2-hydroxyethyl ester, polymer with methyl 2-methyl-2-propenoate and 3-(trimethoxysilyl)propyl 2-methyl-2-propenoate (9CI) (CA INDEX NAME)

CM 1

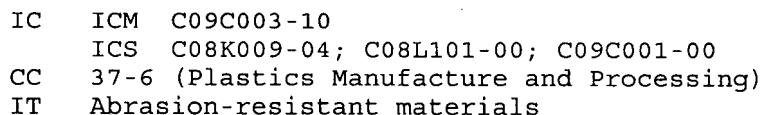
CRN 2530-85-0
CMF C10 H20 O5 Si



CRN 868-77-9
CMF C6 H10 O3



CRN 80-62-6
CMF C5 H8 O2



(manufacture of alkoxy silane-containing vinyl resin-coated inorg. composite particles as modifiers for plastic films or moldings)

IT 9003-53-6P, Polystyrene 9010-88-2P, Ethyl acrylate-methyl methacrylate copolymer **9011-14-7P**, PMMA 26355-01-1P, 2-Hydroxyethyl methacrylate-methyl methacrylate copolymer **26936-30-1P**, Methyl methacrylate-3-(trimethoxysilyl)propyl methacrylate copolymer **59765-49-0P**, Acrylic acid-ethyl acrylate-3-(trimethoxysilyl)propyl methacrylate copolymer **81503-75-5P**, 2-Hydroxyethyl methacrylate-methyl methacrylate-3-(trimethoxysilyl)propyl methacrylate copolymer (shell; manufacture of alkoxysilane-containing vinyl resin-coated inorg. composite particles as modifiers for plastic films or moldings)

TITLE: Undercoating compositions having good storage stability and adhesion and weather resistance

DOCUMENT TYPE: Patent

LANGUAGE: Japanese
 FAMILY ACC. NUM. COUNT: 1
 PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
JP 2001011379	A	20010116	JP 1999-187401	19990701
<--				
PRIORITY APPLN. INFO.:			JP 1999-187401	19990701
<--				

ED Entered STN: 16 Jan 2001

AB Undercoating compns. contain ≥ 1 of organosilanes and hydrolyzates and condensates thereof, colloidal silica and/or alumina, and optionally polymers having silyl groups containing hydrolyzable and/or OH groups. Thus, an undercoating contained methyltrimethoxysilane 70, dimethyldimethoxysilane 30, 30% silica sol 75, an Al chelate 10, water 18, isopropanol 78, and acetylacetone 10 parts, and a topcoating contained a similar polymer and anatase.

IT **282716-99-8P 282717-00-4P 321154-88-5P**

(undercoating compns. containing organosilanes and colloidal silica and alumina having good storage stability and adhesion and weather resistance)

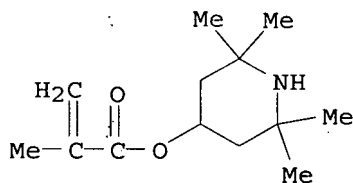
RN 282716-99-8 HCAPLUS

CN Hydrazinium, 1,1,1-trimethyl-2-(2-methyl-1-oxo-2-propenyl)-, inner salt, polymer with butyl 2-propenoate, dimethoxydimethylsilane, 2-hydroxyethyl 2-methyl-2-propenoate, methyl 2-methyl-2-propenoate, 2-propenoic acid, 2,2,6,6-tetramethyl-4-piperidiny 2-methyl-2-propenoate, trimethoxymethylsilane and 3-(trimethoxysilyl)propyl 2-methyl-2-propenoate (9CI) (CA INDEX NAME)

CM 1

CRN 31582-45-3

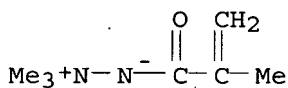
CMF C13 H23 N O2



CM 2

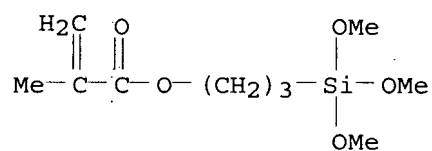
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CMF C7 H14 N2 O



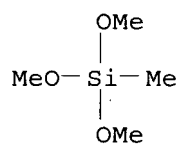
CM 3

CRN 2530-85-0
CMF C10 H20 O5 Si



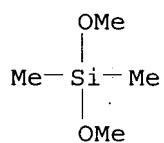
CM 4

CRN 1185-55-3
CMF C4 H12 O3 Si



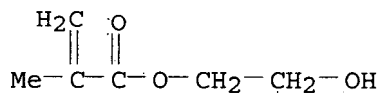
CM 5

CRN 1112-39-6
CMF C4 H12 O2 Si



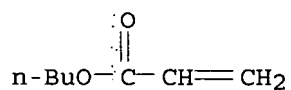
CM 6

CRN 868-77-9
CMF C6 H10 O3



CM 7

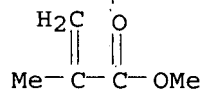
CRN 141-32-2
CMF C7 H12 O2



CM 8

CRN 80-62-6

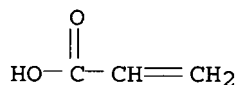
CMF C5 H8 O2



CM 9

CRN 79-10-7

CMF C3 H4 O2



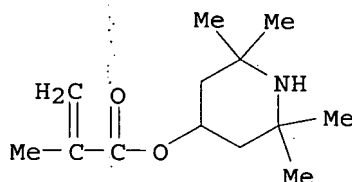
RN 282717-00-4 HCAPLUS

CN Hydrazinium, 1,1,1-trimethyl-2-(2-methyl-1-oxo-2-propenyl)-, inner salt, polymer with butyl 2-propenoate, dimethoxydimethylsilane, methyl 2-methyl-2-propenoate, oxiranylmethyl 2-methyl-2-propenoate, 2,2,6,6-tetramethyl-4-piperidiny 2-methyl-2-propenoate, trimethoxymethylsilane and 3-(trimethoxysilyl)propyl 2-methyl-2-propenoate (9CI) (CA INDEX NAME)

CM 1

CRN 31582-45-3

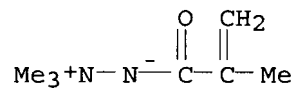
CMF C13 H23 N O2



CM 2

CRN 16898-44-5

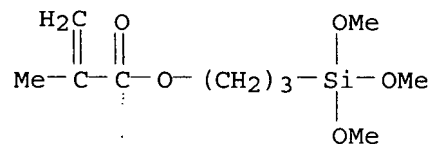
CMF C7 H14 N2 O



CM 3

CRN 2530-85-0

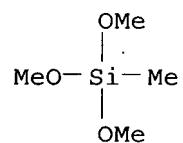
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CM 4

CRN 1185-55-3

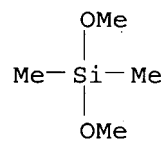
CMF C4 H12 O3 Si



CM 5

CRN 1112-39-6

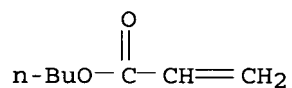
CMF C4 H12 O2 Si



CM 6

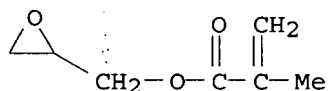
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CMF C7 H12 O2



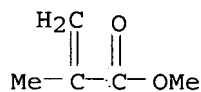
CM 7

CRN 106-91-2
CMF C7 H10 O3



CM 8

CRN 80-62-6
CMF C5 H8 O2

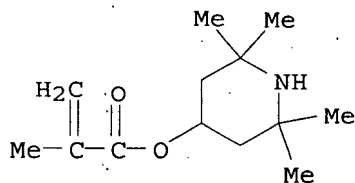


RN 321154-88-5 HCAPLUS

CN Hydrazinium, 1,1,1-trimethyl-2-(2-methyl-1-oxo-2-propenyl)-, inner salt, polymer with butyl 2-propenoate, dimethoxydimethylsilane, 2-hydroxyethyl 2-propenoate, methyl 2-methyl-2-propenoate, 2-propenamide, 2,2,6,6-tetramethyl-4-piperidiny 2-methyl-2-propenoate, trimethoxymethylsilane and 3-(trimethoxysilyl)propyl 2-methyl-2-propenoate (9CI) (CA INDEX NAME)

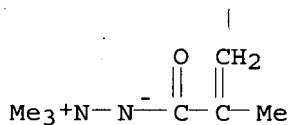
CM 1

CRN 31582-45-3
CMF C13 H23 N O2



CM 2

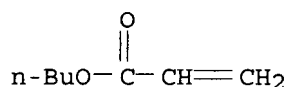
CRN 16898-44-5
CMF C7 H14 N2 O



CM 3

$$\text{Me}-\overset{\text{H}_2\text{C}}{\underset{\parallel}{\text{C}}}-\overset{\text{O}}{\underset{\parallel}{\text{C}}}-\text{O}-(\text{CH}_2)_3-\underset{\text{OMe}}{\overset{\text{OMe}}{\underset{\text{OMe}}{\text{Si}}}}-\text{OMe}$$
$$\begin{array}{c} \text{OMe} \\ | \\ \text{MeO}-\text{Si}-\text{Me} \\ | \\ \text{OMe} \end{array}$$
$$\begin{array}{c} \text{OMe} \\ | \\ \text{Me}-\text{Si}-\text{Me} \\ | \\ \text{OMe} \end{array}$$
$$\text{HO}-\text{CH}_2-\text{CH}_2-\text{O}-\overset{\text{O}}{\parallel}\text{C}-\text{CH}=\text{CH}_2$$

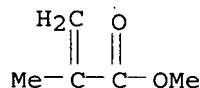
CRN 141-32-2
CMF C7 H12 O2



CM 8

CRN 80-62-6

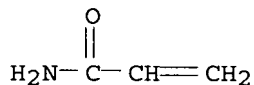
CMF C5 H8 O2



CM 9

CRN 79-06-1

CMF C3 H5 N O



IT 282716-97-6P, Acrylic acid-butyl acrylate-2-hydroxyethyl methacrylate-4-(methacryloyloxy)-2,2,6,6-tetramethylpiperidine-methyl methacrylate-γ-methacryloxypropyltrimethoxysilane-1,1,1-trimethylaminemethacrylimide copolymer 282716-98-7P
321154-87-4P

(undercoating compns. containing organosilanes and colloidal silica and alumina having good storage stability and adhesion and weather resistance)

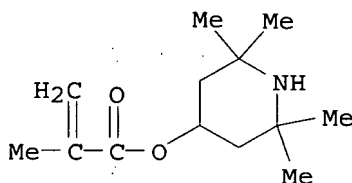
RN 282716-97-6 HCAPLUS

CN Hydrazinium, 1,1,1-trimethyl-2-(2-methyl-1-oxo-2-propenyl)-, inner salt, polymer with butyl 2-propenoate, 2-hydroxyethyl 2-methyl-2-propenoate, methyl 2-methyl-2-propenoate, 2-propenoic acid, 2,2,6,6-tetramethyl-4-piperidinyl 2-methyl-2-propenoate and 3-(trimethoxysilyl)propyl 2-methyl-2-propenoate (9CI) (CA INDEX NAME)

CM 1

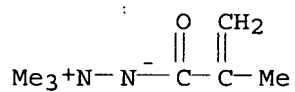
CRN 31582-45-3

CMF C13 H23 N O2



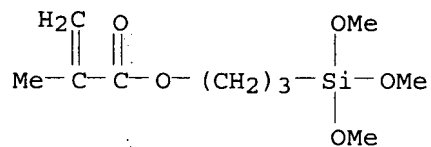
CM 2

CRN 16898-44-5
 CMF C7 H14 N2 O



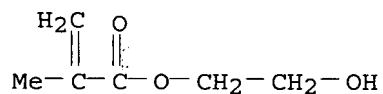
CM 3

CRN 2530-85-0
 CMF C10 H20 O5 Si



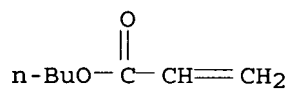
CM 4

CRN 868-77-9
 CMF C6 H10 O3



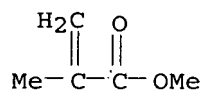
CM 5

CRN 141-32-2
 CMF C7 H12 O2



CM 6

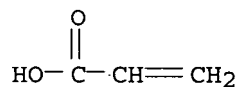
CRN 80-62-6
 CMF C5 H8 O2



CM 7

CRN 79-10-7

CMF C3 H4 O2



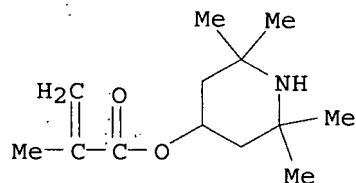
RN 282716-98-7 HCAPLUS

CN Hydrazinium, 1,1,1-trimethyl-2-(2-methyl-1-oxo-2-propenyl)-, inner salt, polymer with butyl 2-propenoate, methyl 2-methyl-2-propenoate, oxiranylmethyl 2-methyl-2-propenoate, 2,2,6,6-tetramethyl-4-piperidiny 2-methyl-2-propenoate and 3-(trimethoxysilyl)propyl 2-methyl-2-propenoate (9CI) (CA INDEX NAME)

CM 1

CRN 31582-45-3

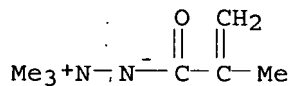
CMF C13 H23 N O2



CM 2

CRN 16898-44-5

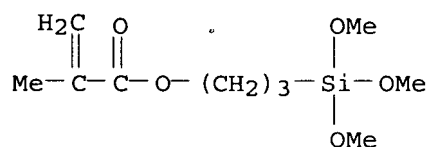
CMF C7 H14 N2 O



CM 3

CRN 2530-85-0

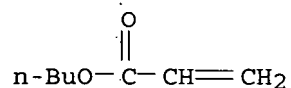
CMF C10 H20 O5 Si



CM 4

CRN 141-32-2

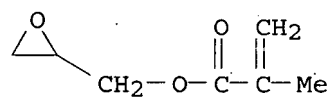
CMF C7 H12 O2



CM 5

CRN 106-91-2

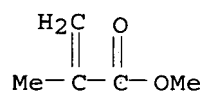
CMF C7 H10 O3



CM 6

CRN 80-62-6

CMF C5 H8 O2



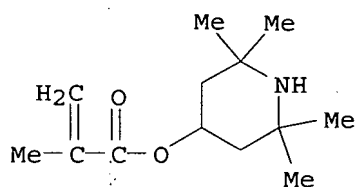
RN 321154-87-4 HCAPLUS

CN Hydrazinium, 1,1,1-trimethyl-2-(2-methyl-1-oxo-2-propenyl)-, inner salt, polymer with butyl 2-propenoate, 2-hydroxyethyl 2-propenoate, methyl 2-methyl-2-propenoate, 2-propenamide, 2,2,6,6-tetramethyl-4-piperidiny 2-methyl-2-propenoate and 3-(trimethoxysilyl)propyl 2-methyl-2-propenoate (9CI) (CA INDEX NAME)

CM 1

CRN 31582-45-3

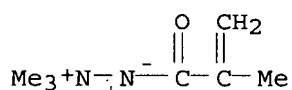
CMF C13 H23 N O2



CM 2

CRN 16898-44-5

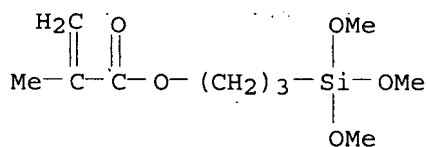
CMF C7 H14 N2 O



CM 3

CRN 2530-85-0

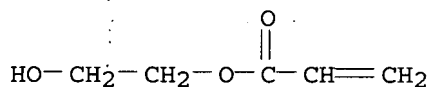
CMF C10 H20 O5 Si



CM 4

CRN 818-61-1

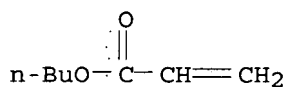
CMF C5 H8 O3



CM 5

CRN 141-32-2

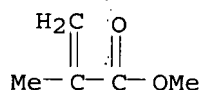
CMF C7 H12 O2



CM 6

CRN 80-62-6

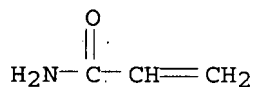
CMF C5 H8 O2



CM 7

CRN 79-06-1

CMF C3 H5 N O



IT 9011-14-7, PMMA

(undercoating compns. containing organosilanes and colloidal silica and alumina having good storage stability and adhesion and weather resistance)

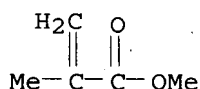
RN 9011-14-7 HCAPLUS

CN 2-Propenoic acid, 2-methyl-, methyl ester, homopolymer (CA INDEX NAME)

CM 1

CRN 80-62-6

CMF C5 H8 O2



IC ICM C09D183-04

ICS C09D005-00; C09D007-12

CC 42-10 (Coatings, Inks, and Related Products)

Section cross-reference(s): 38, 55, 56

IT **Polymerization**

(hydrolytic; undercoating compns. containing organosilanes and colloidal silica and alumina having good storage stability and adhesion and weather resistance)

IT **Polymerization**

(radical; undercoating compns. containing organosilanes and colloidal silica and alumina having good storage stability and adhesion and weather resistance)

IT 149000-95-3P, Dimethyldimethoxysilane-methyltrimethoxysilane copolymer

282716-99-8P 282717-00-4P 285991-46-0P

321154-88-5P

(undercoating compns. containing organosilanes and colloidal silica and alumina having good storage stability and adhesion and weather

resistance)

IT 282716-97-6P, Acrylic acid-butyl acrylate-2-hydroxyethyl methacrylate-4-(methacryloyloxy)-2,2,6,6-tetramethylpiperidine-methyl methacrylate- γ -methacryloxypropyltrimethoxysilane-1,1,1-trimethylaminemethacrylimide copolymer 282716-98-7P 299465-30-8P, Ethyl vinyl ether-hexafluoropropylene-perfluoro(propyl vinyl ether)-vinyltrimethoxysilane copolymer 321154-87-4P (undercoating compns. containing organosilanes and colloidal silica and alumina having good storage stability and adhesion and weather resistance)

IT 1344-28-1, Alumina, uses 7631-86-9, Silica, uses 9003-56-9, ABS polymer 9011-14-7, PMMA 12597-69-2, Steel, uses 25038-59-9, PET polyester, uses (undercoating compns. containing organosilanes and colloidal silica and alumina having good storage stability and adhesion and weather resistance)

L55 ANSWER 20 OF 49 HCAPLUS COPYRIGHT 2007 ACS on STN

ACCESSION NUMBER: 2000:839110 HCAPLUS

DOCUMENT NUMBER: 134:18110

TITLE: Flame-retardant halogen-free styrenic resin composition and molded products

INVENTOR(S): Masato, Honma; Akiyoshi, Tamai; Tamura, Shinichi

PATENT ASSIGNEE(S): Toray Industries, Inc., Japan

SOURCE: Eur. Pat. Appl., 17 pp.

CODEN: EPXXDW

DOCUMENT TYPE: Patent

LANGUAGE: English

FAMILY ACC. NUM. COUNT: 1

PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
EP 1055705	A1	20001129	EP 2000-304459	20000525
<--				
EP 1055705	B1	20040922		
R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, LV, FI, RO				
TW 523533	B	20030311	TW 2000-89108167	20000428
<--				
US 6441069	B1	20020827	US 2000-568164	20000509
<--				
JP 2001049064	A	20010220	JP 2000-154651	20000525
<--				
CN 1275590	A	20001206	CN 2000-108723	20000526
<--				
PRIORITY APPLN. INFO.:			JP 1999-150201	A 19990528
<--				

OTHER SOURCE(S): MARPAT 134:18110

ED Entered STN: 30 Nov 2000

AB A flame-retardant resin composition comprises (A) 100 parts styrenic resin, (B) 1-30 parts phosphate ester compound, and (C) 0.1-10 parts phosphite ester compound, optionally silicone rubber and addnl. phenolic antioxidant, to give a molded product having impact resistance and a high flame retardance without using an organic halogen compound Compns. containing styrenic resin, e.g. ABS graft resin, phosphate ester, and phosphite ester gave test moldings having UL94 flame resistance of at least V-2 rating.

IC ICM C08K005-523

ICS C08K005-524; C08L025-02

CC 37-6 (Plastics Manufacture and Processing)
 IT **Silsesquioxanes**
 (Me, **impact modifier**; combination of phosphite and phosphate compds. for halogen-free styrenic resin moldings having heat, flame, and impact resistance)
 IT Fire-resistant materials
 Fireproofing agents
Impact-resistant materials
 (combination of phosphite and phosphate compds. for halogen-free styrenic resin moldings having heat, flame, and impact resistance)
 IT Silicone rubber, uses
 (**impact modifier**; combination of phosphite and phosphate compds. for halogen-free styrenic resin moldings having heat, flame, and impact resistance)
 IT **Silsesquioxanes**
 (**methacrylate, impact modifier**;
 combination of phosphite and phosphate compds. for halogen-free styrenic resin moldings having heat, flame, and impact resistance)
 REFERENCE COUNT: 3 THERE ARE 3 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L55 ANSWER 21 OF 49 HCAPLUS COPYRIGHT 2007 ACS on STN
 ACCESSION NUMBER: 2000:748772 HCAPLUS
 DOCUMENT NUMBER: 133:322736
 TITLE: Impact-resistant light-diffusing polymer plates and their use for lighting
 INVENTOR(S): Sakuraba, Kenji
 PATENT ASSIGNEE(S): Asahi Chemical Industry Co., Ltd., Japan
 SOURCE: Jpn. Kokai Tokkyo Koho, 10 pp.
 CODEN: JKXXAF
 DOCUMENT TYPE: Patent
 LANGUAGE: Japanese
 FAMILY ACC. NUM. COUNT: 1
 PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
JP 2000296581	A	20001024	JP 1999-109154	19990416
			<--	
PRIORITY APPLN. INFO.:			JP 1999-109154	19990416
			<--	

ED Entered STN: 24 Oct 2000

AB Title plates comprise a base sheet having 100 parts transparent thermoplastic resins in which 3-50 parts acrylic multilayered rubber particles and 0.5-10 parts light diffusers (with weight average particle diameter 0.5-20 μm and refractive index difference from the thermoplastic resins in absolute value ≥ 0.05) are dispersed and a covering layer containing 100 parts transparent thermoplastic resins in which 3-50 parts acrylic multilayered rubber particles and 5-30 parts spherical particles (having weight average particle diameter 5-50 μm and refractive index difference from the thermoplastic resins in absolute value < 0.05) are dispersed. Thus, a sheet containing a base layer having **methacrylic polymer** (Delpet LP 1) 100, rubber particles (A) (containing 28:2:0.03 **Me methacrylate-Bu acrylate-allyl methacrylate** copolymer layer, 32:8:1.0 Bu acrylate-styrene-allyl **methacrylate** copolymer layer, and 27:3 **Me methacrylate-Bu acrylate** copolymer layer) 10, and silicone crosslinked particles (Tospearl 2000B) 4 parts and a covering layer containing Delpet LP 1 100, A 10, and acrylic crosslinked

polymers (Techpolymer MBX 12) 20 parts showed flexural modulus 2900 MPa, total light transmittance 70%, and light diffusion 60%.

IC ICM B32B027-20
ICS B32B027-30; C08J007-04; C08K003-00; C08K005-00; C08L101-12;
C08L051-00

CC 38-3 (Plastics Fabrication and Uses)

ST thermoplastic resin plate impact resistance; **methacrylic** resin acrylic rubber particle light diffusion; lighting **methacrylic** resin laminate plate; **methacrylate** rubber particle **methacrylic** resin compn

IT **Silsesquioxanes**
(Me, Tospearl 2000B, light diffuser; impact-resistant light-diffusing polymer plates and their use for lighting)

IT Acrylic rubber
Synthetic rubber, uses
(allyl **methacrylate**-Bu acrylate-Me **methacrylate**-styrene, graft, core-shell; impact-resistant light-diffusing polymer plates and their use for lighting)

IT Electric lamps
Impact-resistant materials
(**impact**-resistant light-diffusing polymer plates and their use for lighting)

L55 ANSWER 22 OF 49 HCAPLUS COPYRIGHT 2007 ACS on STN

ACCESSION NUMBER: 2000:748771 HCAPLUS

DOCUMENT NUMBER: 133:322735

TITLE: Impact-resistant light-diffusing polymer plates and their use for lighting

INVENTOR(S): Sakuraba, Kenji

PATENT ASSIGNEE(S): Asahi Chemical Industry Co., Ltd., Japan

SOURCE: Jpn. Kokai Tokkyo Koho, 10 pp.

CODEN: JKXXAF

DOCUMENT TYPE: Patent

LANGUAGE: Japanese

FAMILY ACC. NUM. COUNT: 1

PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
JP 2000296580	A	20001024	JP 1999-109153	19990416

PRIORITY APPLN. INFO.: JP 1999-109153 19990416

ED Entered STN: 24 Oct 2000

AB Title plates comprise a base sheet having 100 parts transparent thermoplastic resins in which 3-50 parts acrylic multilayered rubber particles and 0.5-10 parts light diffusers (with average particle diameter 0.5-20 μ m and refractive index difference from the thermoplastic resins in absolute value ≥ 0.05) are dispersed and a ≤ 100 - μ m covering layer containing 100 parts transparent thermoplastic resins in which 5-30 parts spherical particles (having weight average particle diameter 5-50 μ m and refractive index difference from the thermoplastic resins in absolute value < 0.05) are dispersed. Thus, a sheet containing a base layer having **methacrylic** polymer (Delpet LP 1) 100, rubber particles (containing 28:2:0.03 Me **methacrylate**-Bu acrylate-allyl **methacrylate** copolymer layer, 32:8:1.0 Bu acrylate-styrene-allyl **methacrylate** copolymer layer, and 27:3 Me **methacrylate**-Bu acrylate copolymer layer) 10, and silicone crosslinked particles (Tospearl 2000B) 4 parts and a 30- μ m covering

layer containing 100 parts Delpet LP 1 and 20 parts acrylic crosslinked polymers (Techpolymer MBX 12) showed flexural modulus 2900 MPa, total light transmittance 70%, and light diffusion 60%.

IC ICM B32B027-20
ICS B32B027-30; C08J007-04; C08K003-00; C08K005-00; C08L101-12;
C08L051-00

CC 38-3 (Plastics Fabrication and Uses)

ST thermoplastic resin plate impact resistance; **methacrylic** resin acrylic rubber particle light diffusion; lighting **methacrylic** resin plate; **methacrylate** rubber particle **methacrylic** resin compn

IT **Silsesquioxanes**
(Me, Tospearl 2000B, light diffuser; impact-resistant light-diffusing polymer plates and their use for lighting)

IT Acrylic rubber
Synthetic rubber, uses
(allyl **methacrylate**-Bu acrylate-Me **methacrylate**-styrene, graft, core-shell; impact-resistant light-diffusing polymer plates and their use for lighting)

IT Electric lamps
Impact-resistant materials
(**impact**-resistant light-diffusing polymer plates and their use for lighting)

IT 110254-02-9P, Allyl **methacrylate**-n-butyl acrylate-**methyl methacrylate**-styrene graft copolymer
(rubber, core-shell; impact-resistant light-diffusing polymer plates and their use for lighting)

L55 ANSWER 23 OF 49 HCAPLUS COPYRIGHT 2007 ACS on STN

ACCESSION NUMBER: 2000:672907 HCAPLUS

DOCUMENT NUMBER: 133:253306

TITLE: Polysiloxane fireproofing agents and resin compositions containing them

INVENTOR(S): Miyatake, Nobuo; Takigawa, Kazunori; Nakamori, Daisuke; Hamaguchi, Shigeki

PATENT ASSIGNEE(S): Kanegafuchi Chemical Industry Co., Ltd., Japan; Kaneka Corp.

SOURCE: Jpn. Kokai Tokkyo Koho, 12 pp.

CODEN: JKXXAF

DOCUMENT TYPE: Patent

LANGUAGE: Japanese

FAMILY ACC. NUM. COUNT: 1

PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
JP 2000264935	A	20000926	JP 1999-69448	19990316
			<--	
JP 3685640	B2	20050824		
PRIORITY APPLN. INFO.:			JP 1999-69448	19990316
			<--	

ED Entered STN: 26 Sep 2000

AB The fireproofing agents are manufactured by grafting vinyl monomers onto polysiloxane particles with diameter 0.008-0.2 μ m. Thus, octamethylcyclotetrasiloxane- γ -acryloyloxypropyltrimethoxysilane-diphenyldimethoxysilane copolymer (average particle size 0.06 μ m) was grafted with styrene and acrylonitrile, kneaded with Bu acrylate-styrene-acrylonitrile graft copolymer, acrylonitrile-styrene copolymer, and other additives, and injection-molded to give a test piece, showing Izod impact strength 22 kg-cm/cm and UL 94 fire

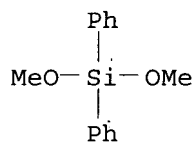
resistance rating HB.

- IT 296240-26-1P, Acrylonitrile- γ -acryloyloxypropyltrimethoxysilane-diphenyldimethoxysilane-octamethylcyclotetrasiloxane-styrene graft copolymer
 296240-27-2P, γ -Acryloyloxypropyltrimethoxysilane-diphenyldimethoxysilane-methyl methacrylate-octamethylcyclotetrasiloxane graft copolymer
 (fireproofing agent; graft polysiloxane fireproofing agents)
- RN 296240-26-1 HCAPLUS
- CN 2-Propenoic acid, 3-(trimethoxysilyl)propyl ester, polymer with dimethoxydiphenylsilane, ethenylbenzene, octamethylcyclotetrasiloxane and 2-propenenitrile, graft (9CI) (CA INDEX NAME)

CM 1

CRN 6843-66-9

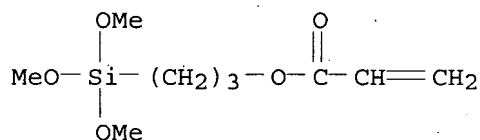
CMF C14 H16 O2 Si



CM 2

CRN 4369-14-6

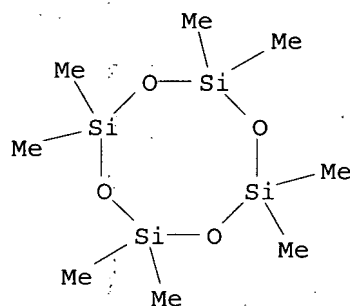
CMF C9 H18 O5 Si



CM 3

CRN 556-67-2

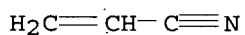
CMF C8 H24 O4 Si4



CM 4

CRN 107-13-1

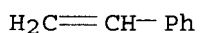
CMF C3 H3 N



CM 5

CRN 100-42-5

CMF C8 H8



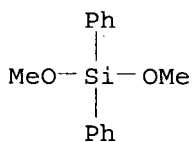
RN 296240-27-2 HCAPLUS

CN 2-Propenoic acid, 2-methyl-, methyl ester, polymer with dimethoxydiphenylsilane, octamethylcyclotetrasiloxane and 3-(trimethoxysilyl)propyl 2-propenoate, graft (9CI) (CA INDEX NAME)

CM 1

CRN 6843-66-9

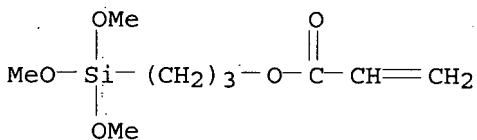
CMF C14 H16 O2 Si



CM 2

CRN 4369-14-6

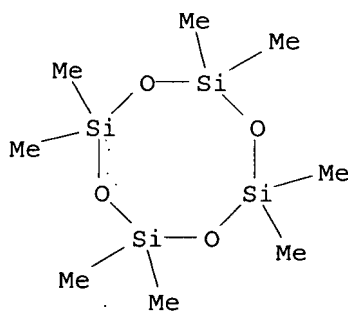
CMF C9 H18 O5 Si



CM 3

CRN 556-67-2

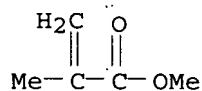
CMF C8 H24 O4 Si4



CM 4

CRN 80-62-6

CMF C5 H8 O2



IT 9011-14-7, Poly(methyl methacrylate)
(graft polysiloxane fireproofing agents)

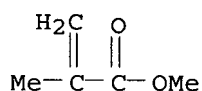
RN 9011-14-7 HCAPLUS

CN 2-Propenoic acid, 2-methyl-, methyl ester, homopolymer (CA INDEX NAME)

CM 1

CRN 80-62-6

CMF C5 H8 O2



IC ICM C08F283-12

ICS C08F002-44; C08L023-12; C08L023-16; C08L025-06; C08L025-12;
C08L025-16; C08L027-06; C08L033-12; C08L051-08; C08L067-00;
C08L069-00; C08L071-12; C08L077-00

CC 37-6 (Plastics Manufacture and Processing)

IT Fireproofing agents

Impact-resistant materials

(graft polysiloxane fireproofing agents)

IT 296240-26-1P, Acrylonitrile- γ -
acryloyloxypropyltrimethoxysilane-diphenyldimethoxysilane-
octamethylcyclotetrasiloxane-styrene graft copolymer
296240-27-2P, γ -Acryloyloxypropyltrimethoxysilane-
diphenyldimethoxysilane-methyl methacrylate-
octamethylcyclotetrasiloxane graft copolymer

(fireproofing agent; graft polysiloxane fireproofing agents)

IT 98-83-9D, α -Methylstyrene, graft polymers with rubbers

941-69-5D, N-Phenylmaleimide, graft polymers with rubbers 9002-86-2;

Poly(vinyl chloride) 9003-07-0, Polypropylene 9003-53-6,
 Polystyrene 9011-14-7, Poly(methyl methacrylate)
 25034-86-0, Methyl methacrylate-styrene copolymer 106677-58-1,
 Acrylonitrile-butadiene-styrene graft copolymer 108564-20-1,
 Acrylonitrile-butadiene- α -methylstyrene graft copolymer
 110186-79-3, Acrylonitrile-butadiene-N-phenylmaleimide-styrene graft
 copolymer 110726-80-2, Acrylonitrile-ethylene-propylene-styrene
 graft copolymer
 (graft polysiloxane fireproofing agents)

L55 ANSWER 24 OF 49 HCAPLUS COPYRIGHT 2007 ACS on STN

ACCESSION NUMBER: 2000:562887 HCAPLUS

DOCUMENT NUMBER: 133:136162 .

TITLE: Light-scattering acrylic polymer compositions
 containing composite silicone microparticles

INVENTOR(S): Iguchi, Yoshinori; Oba, Toshio

PATENT ASSIGNEE(S): Shin-Etsu Chemical Industry Co., Ltd., Japan

SOURCE: Jpn. Kokai Tokkyo Koho, 6 pp.

CODEN: JKXXAF

DOCUMENT TYPE: Patent

LANGUAGE: Japanese

FAMILY ACC. NUM. COUNT: 1

PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
JP 2000226486	A	20000815	JP 1999-26295	19990203

PRIORITY APPLN. INFO.: JP 1999-26295 19990203

ED Entered STN: 15 Aug 2000

AB The compns., useful for lighting apparatus, displays, screens, etc.,
 contain 100 parts acrylic polymers and 0.005-50 parts silicone rubber
 microparticles covered with organosilsesquioxanes. Thus, a test piece
 containing 100 parts Acrypet VH 001 (**methacrylic** polymer) and 3
 parts rubber microparticles (prepared from vinyl-terminated
 methylsiloxane and methylhydrogensiloxane) covered with
 methyltrimethoxysilane polymer showed light transmittance 67, light
 scattering 0.29, and good impact resistance.

IC ICM C08L033-00

CC 37-6 (**Plastics** Manufacture and Processing)

Section cross-reference(s): 73

ST light scattering acrylic polymer silicone dispersibility; transparency
 silicone rubber microparticle silsesquioxane covering; impact
 resistance **methacrylic** polymer methylhydrogensiloxane rubber

IT **Impact-resistant materials**

Transparent materials

(light-scattering acrylic polymer compns. containing
 silsesquioxane-covered silicone rubber microparticles with high
 light transmittance and good impact resistance)

IT **Silsesquioxanes**

(silicone rubber microparticles covered with; light-scattering
 acrylic polymer compns. containing silsesquioxane-covered silicone
 rubber microparticles with high light transmittance and good impact
 resistance)

L55 ANSWER 25 OF 49 HCAPLUS COPYRIGHT 2007 ACS on STN

ACCESSION NUMBER: 2000:484129 HCAPLUS

DOCUMENT NUMBER: 133:105766

TITLE: Fireproof resin compositions and their moldings

INVENTOR(S): Honma, Masato; Yamauchi, Koji; Nishigaki, Kaoru
 PATENT ASSIGNEE(S): Toray Industries, Inc., Japan
 SOURCE: Jpn. Kokai Tokkyo Koho, 12 pp.
 CODEN: JKXXAF
 DOCUMENT TYPE: Patent
 LANGUAGE: Japanese
 FAMILY ACC. NUM. COUNT: 1
 PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
JP 2000198904	A	20000718	JP 1998-364381	19981222

PRIORITY APPLN. INFO.: JP 1998-315676 A 19981106

OTHER SOURCE(S): MARPAT 133:105766

ED Entered STN: 18 Jul 2000

AB Title compns. comprise 10-20% rubber-containing styrene resins 100, aromatic phosphates 1-30, silicone rubbers and/or resins 0.1-1, colorants 0.1-5, and UV absorbers 0.01-0.5 part. A composition comprising ABS graft copolymer (60% rubber) 25, acrylonitrile-styrene copolymer 75, PX 200 10, DC 4-7105 (silicone rubber) 0.5, CN 464 1.5, and Viosorb 520 0.2 part was extruded and molded into a test piece with Izod impact strength (ASTM D 256-56A) 140 J/m, UL 94 test V-2, and color deviation (after 100 h under weatherometer, 55°, 50% relative humidity) 1.85.

IC ICM C08L051-04

ICS C08J005-00; C08K005-521; C08L025-04; C08L055-02; C08L051-04; C08L083-00

CC 37-6 (Plastics Manufacture and Processing)

Section cross-reference(s): 39

IT **Silsesquioxanes**

(Dow Corning 4-7105; silicone rubber (or resin)-containing styrene resin compns. with impact and fire and weather resistance)

IT **Silsesquioxanes**

(Me, Tospearl 2000B; silicone rubber (or resin)-containing styrene resin compns. with impact and fire and weather resistance)

IT **Impact-resistant materials**

Impact-resistant materials

(fire-resistant; silicone rubber (or resin)-containing styrene resin compns. with impact and fire and weather resistance)

IT **Fire-resistant materials**

Fire-resistant materials

(**impact**-resistant; silicone rubber (or resin)-containing styrene resin compns. with impact and fire and weather resistance)

IT **Silsesquioxanes**

(**methacrylate**-, Dow Corning 4-7081; silicone rubber (or resin)-containing styrene resin compns. with impact and fire and weather resistance)

L55 ANSWER 26 OF 49 HCAPLUS COPYRIGHT 2007 ACS on STN

ACCESSION NUMBER: 2000:430047 HCAPLUS

DOCUMENT NUMBER: 133:59596

TITLE: Rubber particles, graft copolymer particles containing them, and thermoplastic resin compositions having high impact resistance

INVENTOR(S): Kaneda, Yutaka; Kimura, Katsuhiko; Aoyama, Taizo

PATENT ASSIGNEE(S): Kanegafuchi Chemical Industry Co., Ltd., Japan

SOURCE: Jpn. Kokai Tokkyo Koho, 9 pp.

CODEN: JKXXAF

DOCUMENT TYPE: Patent
LANGUAGE: Japanese
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
JP 2000178434	A	20000627	JP 1998-355838	19981215

PRIORITY APPLN. INFO.: JP 1998-355838 19981215

ED Entered STN: 28 Jun 2000

AB Crosslinked rubber particles comprise oxyalkylene polymer components and vinyl polymer components. Thus, 18.0 parts Me methacrylate and 2.0 parts Bu acrylate were grafted onto a rubber prepared from polyoxyalkylene having Si end (SAX 350) 20, γ -methacryloyloxypropyltrimethoxysilane 0.5, Bu acrylate 50, and allyl methacrylate 0.5 part to give particles, which (12 parts) was mixed with 100 parts PVC (S 1008) and additives and molded to give a sheet showing Izod impact strength 130 kgcm/cm² at 23°.

IT 277759-13-4P

(rubber particles, graft copolymer particles containing them, and thermoplastic resin compns. having high impact resistance)

RN 277759-13-4 HCAPLUS

CN 2-Propenoic acid, 2-methyl-, methyl ester, polymer with butyl
2-propenoate, Kaneka Silyl SAX 350, 2-propenyl 2-methyl-2-propenoate
and 3-(trimethoxysilyl)propyl 2-methyl-2-propenoate, graft (9CI) (CA
INDEX NAME)

CM 1

CRN 277759-11-2

CMF Unspecified

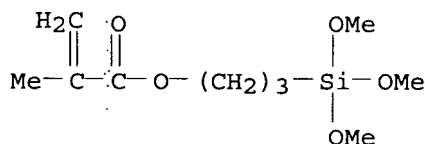
CCI PMS, MAN

*** STRUCTURE DIAGRAM IS NOT AVAILABLE ***

CM 2

CRN 2530-85-0

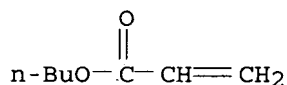
CMF C10 H20 O5 Si



CM 3

CRN 141-32-2

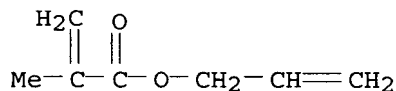
CMF	C7	H12	O2
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CM 4

CRN 96-05-9

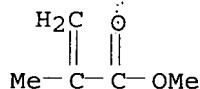
CMF C7 H10 O2



CM 5

CRN 80-62-6

CMF C5 H8 O2



IT 9011-14-7, Polymethyl methacrylate
(rubber particles, graft copolymer particles containing them, and
thermoplastic resin compns. having high impact resistance)

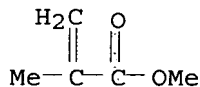
RN 9011-14-7 HCAPLUS

CN 2-Propenoic acid, 2-methyl-, methyl ester, homopolymer (CA INDEX
NAME)

CM 1

CRN 80-62-6

CMF C5 H8 O2



IC ICM C08L071-00

ICS C08L071-00; C08L009-00; C08L023-02; C08L025-02; C08L025-06;
C08L027-02; C08L027-06; C08L033-08; C08L033-10; C08L033-12;
C08L033-18; C08L033-20; C08L051-04; C08L059-00; C08L067-00;
C08L067-03; C08L069-00; C08L071-08; C08L071-12

CC 37-6 (Plastics Manufacture and Processing)

IT **Impact-resistant materials**

(rubber particles, graft copolymer particles containing them, and
thermoplastic resin compns. having high impact resistance)

IT 277759-13-4P

(rubber particles, graft copolymer particles containing them, and
thermoplastic resin compns. having high impact resistance)

IT 9002-86-2, S 1008 9003-53-6, Polystyrene 9003-54-7,
Poly(acrylonitrile-styrene) 9011-14-7, Polymethyl
methacrylate 25212-74-2, Polyphenylene sulfide 25667-40-7,
Poly(1,4-phenylene ether)
(rubber particles, graft copolymer particles containing them, and
thermoplastic resin compns. having high impact resistance)

L55 ANSWER 27 OF 49 HCAPLUS COPYRIGHT 2007 ACS on STN

ACCESSION NUMBER: 2000:401926 HCAPLUS
DOCUMENT NUMBER: 133:31402
TITLE: Flame retardants for thermoplastic resin and flame
retardant resin compositions
INVENTOR(S): Miyatake, Nobuo; Takikawa, Kazunori; Nakamori,
Daisuke; Hamaguchi, Shigeki
PATENT ASSIGNEE(S): Kaneka Corporation, Japan
SOURCE: PCT Int. Appl., 38 pp.
CODEN: PIXXD2
DOCUMENT TYPE: Patent
LANGUAGE: Japanese
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 2000034392	A1	20000615	WO 1999-JP6783	19991203
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W: AU, CA, CN, JP, KR, SG, US				
RW: BE, DE, ES, FR, GB, IT, NL				
TW 473501	B	20020121	TW 1999-88121050	19991202
<--				
CA 2330145	A1	20000615	CA 1999-2330145	19991203
<--				
EP 1160290	A1	20011205	EP 1999-973301	19991203
<--				
EP 1160290	B1	20050504		
R: BE, DE, ES, FR, GB, IT, NL				
US 6545116	B1	20030408	US 2000-646219	20000915
<--				
PRIORITY APPLN. INFO.:			JP 1998-348775	A 19981208
<--				
			JP 1999-31029	A 19990209
<--				
			WO 1999-JP6783	W 19991203
<--				

ED Entered STN: 16 Jun 2000

AB The flame retardants have a toluene-insol. content of $\geq 50\%$ and
comprise crosslinked polysiloxane particles having an average particle
diameter of 0.01-2000 μm . Incorporating the flame retardants into a
thermoplastic resin (e.g., polyesters, polycarbonates) gives a resin
composition which has excellent impact resistance and generates no harmful
gases during burning, i.e., which is friendly to the environment.

IT 273398-06-4P, 3-Acryloyloxypropyltrimethoxysilane-
diphenyldimethoxysilane-methyltrimethoxysilane-octamethyltetrasiloxane-
tetraethoxysilane copolymer 273398-07-5P
273398-08-6P

(crosslinked polysiloxane particles as fireproofing agents for
thermoplastics)

RN 273398-06-4 HCAPLUS

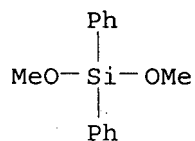
CN Silicic acid (H_4SiO_4), tetraethyl ester, polymer with
dimethoxydiphenylsilane, 1,1,3,3,5,5,7,7-octamethyltetrasiloxane,

trimethoxymethylsilane and 3-(trimethoxysilyl)propyl 2-propenoate
(9CI) (CA INDEX NAME)

CM 1

CRN 6843-66-9

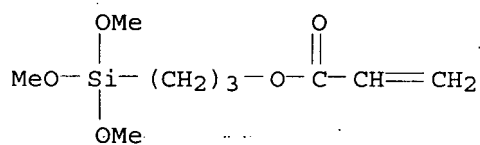
CMF C14 H16 O2 Si



CM 2

CRN 4369-14-6

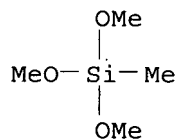
CMF C9 H18 O5 Si



CM 3

CRN 1185-55-3

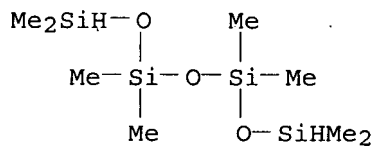
CMF C4 H12 O3 Si



CM 4

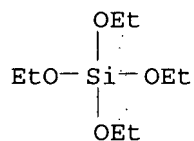
CRN 1000-05-1

CMF C8 H26 O3 Si4



CM 5

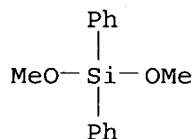
CRN 78-10-4
CMF C8 H20 O4 Si



RN 273398-07-5 HCAPLUS
CN 2-Propenoic acid, butyl ester, polymer with dimethoxydiphenylsilane, ethenylbenzene, 1,1,3,3,5,5,7,7-octamethyltetrasiloxane, silicic acid (H4SiO4) tetraethyl ester and 3-(trimethoxysilyl)propyl 2-propenoate, graft (9CI) (CA INDEX NAME)

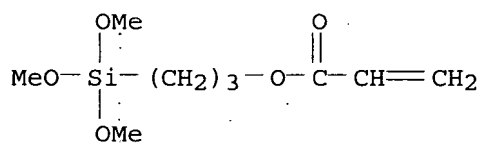
CM 1

CRN 6843-66-9
CMF C14 H16 O2 Si



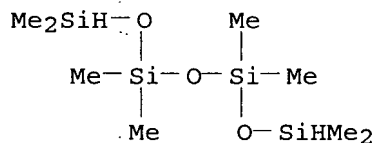
CM 2

CRN 4369-14-6
CMF C9 H18 O5 Si



CM 3

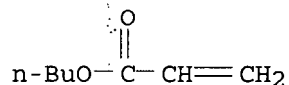
CRN 1000-05-1
CMF C8 H26 O3 Si4



CM 4

CRN 141-32-2

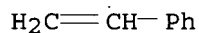
CMF C7 H12 O2



CM 5

CRN 100-42-5

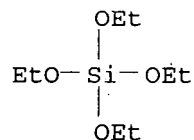
CMF C8 H8



CM 6

CRN 78-10-4

CMF C8 H20 O4 Si



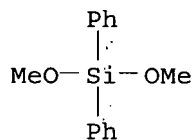
RN 273398-08-6 HCAPLUS

CN 2-Propenoic acid, 2-methyl-, methyl ester, polymer with butyl
2-propenoate, dimethoxydiphenylsilane, ethenylbenzene,
1,1,3,3,5,5,7,7-octamethyltetrasiloxane, silicic acid (H₄SiO₄)
tetraethyl ester and 3-(trimethoxysilyl)propyl 2-propenoate, graft
(9CI) (CA INDEX NAME)

CM 1

CRN 6843-66-9

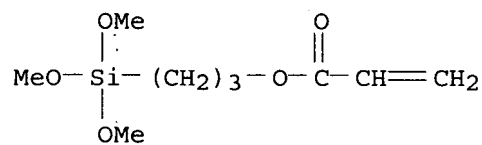
CMF C14 H16 O2 Si



CM 2

CRN 4369-14-6

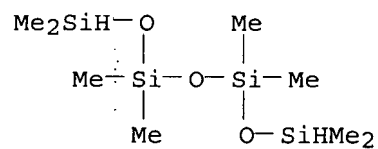
CMF C9 H18 O5 Si



CM 3

CRN 1000-05-1

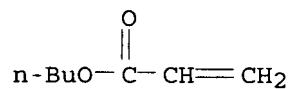
CMF C8 H26 O3 Si4



CM 4

CRN 141-32-2

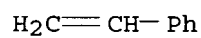
CMF C7 H12 O2



CM 5

CRN 100-42-5

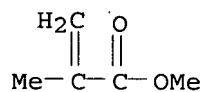
CMF C8 H8



CM 6

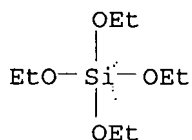
CRN 80-62-6

CMF C5 H8 O2



CM 7

CRN 78-10-4
CMF C8 H20 O4 Si



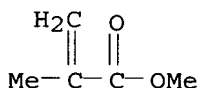
IT 9011-14-7, PMMA
(impact-resistant flame retardant thermoplastic compns. containing crosslinked polysiloxane particles as fireproofing agents)

RN 9011-14-7 HCAPLUS

CN 2-Propenoic acid, 2-methyl-, methyl ester, homopolymer (CA INDEX NAME)

CM 1

CRN 80-62-6
CMF C5 H8 O2



IC ICM C08L101-00
ICS C08G077-04; C09K021-14
CC 37-6 (Plastics Manufacture and Processing)
IT Fire-resistant materials

Impact-resistant materials

(impact-resistant flame retardant thermoplastic compns. containing crosslinked polysiloxane particles as fireproofing agents)

IT **Silsesquioxanes**
(polysiloxane-; crosslinked polysiloxane particles as fireproofing agents for thermoplastics)

IT 273398-05-3P, 3-Mercaptopropyltrimethoxymethylsilane-methyltrimethoxysilane-octamethyltetrasiloxane-tetraethoxysilane copolymer 273398-06-4P, 3-Acryloyloxypropyltrimethoxysilane-diphenyldimethoxysilane-methyltrimethoxysilane-octamethyltetrasiloxane-tetraethoxysilane copolymer 273398-07-5P 273398-08-6P

(crosslinked polysiloxane particles as fireproofing agents for thermoplastics)

IT 9002-86-2, PVC 9003-07-0, Polypropylene 9003-53-6, Polystyrene 9011-14-7, PMMA 25034-86-0, **Methyl methacrylate**-styrene copolymer 110726-80-2, Acrylonitrile-ethylene-propylene-styrene graft copolymer (impact-resistant flame retardant thermoplastic compns. containing crosslinked polysiloxane particles as fireproofing agents)

REFERENCE COUNT: 7 THERE ARE 7 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L55 ANSWER 28 OF 49 HCAPLUS COPYRIGHT 2007 ACS on STN
ACCESSION NUMBER: 2000:389016 HCAPLUS
DOCUMENT NUMBER: 133:31392

TITLE: Flame retardant polycarbonate-polyester compositions containing silsesquioxanes
 INVENTOR(S): Ono, Yoshiki; Ohara, Yoichi
 PATENT ASSIGNEE(S): Kanegafuchi Chemical Industry Co., Ltd., Japan
 SOURCE: Jpn. Kokai Tokkyo Koho, 14 pp.
 CODEN: JKXXAF
 DOCUMENT TYPE: Patent
 LANGUAGE: Japanese
 FAMILY ACC. NUM. COUNT: 1
 PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
JP 2000159995	A	20000613	JP 1998-335127	19981126

PRIORITY APPLN. INFO.: JP 1998-335127 19981126
 <--

ED Entered STN: 13 Jun 2000

AB The compns., useful for elec. and electronic parts, contain 100 parts 95:5-60:40 polycarbonate-thermoplastic polyester mixts., 1-30 parts polyorganosilsesquioxanes having RSiO_{3/2} units 90-20, R₂SiO_{2/2} units 0-60, and R₂SiO_{1/2} units 0-50 mol% (R = C₂-12 hydrocarbyl, C₁-16 alkyl or aryl having substituents selected from epoxy OH, vinyl, acryl, and methacryl groups; R₂, R₃ = same as R, OH, alkoxy), and 0.005-3 parts transition metal compds. Thus, a test piece containing bisphenol A polycarbonate 70, PET 30, silsesquioxane (prepared from MeSiCl₃, Ph₂SiCl₂, Ph₃SiCl, and Me₃SiCl) 7, and Zn borate 0.5 part showed fire resistance (UL 94) V-0 and Izod impact strength 160 J/m.

IC ICM C08L069-00
 ICS C08K003-10; C08L069-00; C08L067-02; C08L083-04; C08L051-00; C08L023-00

CC 37-6 (Plastics Manufacture and Processing)

IT Styrene-butadiene rubber, uses
 (Me methacrylate-grafted, EXL 2602; fire- and impact-resistant polycarbonate-polyester compns. containing silsesquioxanes and transition metal compds.)

IT Acrylic rubber
 (butadiene-Me methacrylate-styrene, graft, EXL 2602; fire- and impact-resistant polycarbonate-polyester compns. containing silsesquioxanes and transition metal compds.)

IT **Impact-resistant materials**
 (fire-resistant; fire- and impact-resistant polycarbonate-polyester compns. containing silsesquioxanes and transition metal compds.)

IT **Fire-resistant materials**
 (impact-resistant; fire- and impact-resistant polycarbonate-polyester compns. containing silsesquioxanes and transition metal compds.)

IT **Silsesquioxanes**
 (siloxane-; fire- and impact-resistant polycarbonate-polyester compns. containing silsesquioxanes and transition metal compds.)

L55 ANSWER 29 OF 49 HCAPLUS COPYRIGHT 2007 ACS on STN

ACCESSION NUMBER: 2000:387326 HCAPLUS

DOCUMENT NUMBER: 133:31381

TITLE: Flame retardant polycarbonate-polyester compositions with excellent impact and solvent resistance

INVENTOR(S): Iba, Satoaki; Matsumoto, Kazuaki

PATENT ASSIGNEE(S): Kanegafuchi Chemical Industry Co., Ltd., Japan

SOURCE: Jpn. Kokai Tokkyo Koho, 14 pp.

DOCUMENT TYPE: CODEN: JKXXAF
 LANGUAGE: Patent
 FAMILY ACC. NUM. COUNT: Japanese
 1
 PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
JP 2000159994	A	20000613	JP 1998-334426	19981125

PRIORITY APPLN. INFO.: JP 1998-334426 19981125
 <--

OTHER SOURCE(S): MARPAT 133:31381

ED Entered STN: 13 Jun 2000

AB The comps. contain 100 parts 99:1-50:50 polycarbonates-thermoplastic polyester mixts., 0.1-20 parts 1:9-9:1 triaryl phosphate-triaryl phosphate oligomer mixts., 0.1-15 parts C1-10 alkyl (meth)acrylate-glycidyl (meth)acrylate copolymers, and ≥ 1 compds. (selected from silicone 0.1-50, silicate salts 0.1-100, and fluoropolymers 0.01-5 parts). Thus, a test piece containing bisphenol A polycarbonate 90, PET 10, TPP (tri-Ph phosphate) 5.0, PX 200 (phosphate) 2.5, Bondfast 7M (ethylene glycidyl methacrylate-Me acrylate copolymer) 4.0, and Polyflon FA 500 (PTFE) 0.3 part showed fire resistance (UL 94) V-0, Izod impact resistance 850 J/m, good gasoline and weather resistance, and good mold deposition prevention.

IC ICM C08L069-00
 ICS C08K003-34; C08K005-521; C08L027-12; C08L033-08; C08L067-02; C08L083-04

CC 37-6 (Plastics Manufacture and Processing)

ST fire impact solvent resistance polycarbonate polyester; scale prevention bisphenol polycarbonate PET blend; discoloration prevention glycidyl methacrylate copolymer fluoropolymer

IT Silsesquioxanes
 (epoxy-containing, DC 4-7051; polycarbonate-polyester comps. with good fire, impact, and solvent resistance and reduced scale deposition)

IT Impact-resistant materials
 (fire-resistant; polycarbonate-polyester comps. with good fire, impact, and solvent resistance and reduced scale deposition)

IT Fire-resistant materials
 (impact-resistant; polycarbonate-polyester comps. with good fire, impact, and solvent resistance and reduced scale deposition)

L55 ANSWER 30 OF 49 HCAPLUS COPYRIGHT 2007 ACS on STN

ACCESSION NUMBER: 2000:300926 HCAPLUS

DOCUMENT NUMBER: 132:322593

TITLE: Polycarbonate compositions containing silsesquioxanes with good impact resistance and flowability

INVENTOR(S): Ono, Yoshiki; Ohara, Yoichi

PATENT ASSIGNEE(S): Kanegafuchi Chemical Industry Co., Ltd., Japan

SOURCE: Jpn. Kokai Tokkyo Koho, 12 pp.

CODEN: JKXXAF

DOCUMENT TYPE: Patent

LANGUAGE: Japanese

FAMILY ACC. NUM. COUNT: 1

PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
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JP 2000129108      A      20000509      JP 1998-308444      19981029
                                     <--
JP 3875414         B2      20070131
PRIORITY APPLN. INFO.:      JP 1998-308444      19981029
                                     <--

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ED Entered STN: 09 May 2000

AB The compns. comprise (A) 60-95% polycarbonates, (B) 5-40% thermoplastic polyesters (A + B = 100 parts), and (C) 1-30 parts polyorganosilsesquioxanes comprising repeating units of $\text{RSiO}_3/2$ 40-90, $\text{R}'_2\text{SiO}$ 0-50, and $\text{R}'_3\text{SiO}_{1/2}$ 10-60 mol% (R = C1-12-hydrocarbyl, epoxy-, OH-, vinyl-, acryl-, or **methacryl**-modified C1-16-alkyl or aryl; R' = same as R, OH, alkoxy). Thus, 70 parts bisphenol A-type polycarbonate and 30 parts PET were kneaded with 7 parts silsesquioxane ($\text{RSiO}_3/2:\text{R}'_2\text{SiO}:\text{R}'_3\text{SiO}_{1/2} = 85:3:12$) prepared from methyltrichlorosilane, diphenyldichlorosilane, triphenylchlorosilane, and trimethylchlorosilane, pelletized, and extruded to give a test piece, showing notched Izod impact strength 735 J/m and good flowability and heat distortion resistance.

IC ICM C08L069-00
ICS C08L069-00; C08L067-02; C08L083-04

CC 37-6 (**Plastics** Manufacture and Processing)

IT **Impact-resistant materials**
(polycarbonate compns. containing silsesquioxanes with good impact resistance and flowability)

IT **Silsesquioxanes**
(polycarbonate compns. containing silsesquioxanes with good impact resistance and flowability)

IT **Silsesquioxanes**
Silsesquioxanes
(siloxane-; polycarbonate compns. containing silsesquioxanes with good impact resistance and flowability)

L55 ANSWER 31 OF 49 HCAPLUS COPYRIGHT 2007 ACS on STN

ACCESSION NUMBER: 2000:266335 HCAPLUS
DOCUMENT NUMBER: 132:294580
TITLE: Flame retardant polycarbonate compositions containing phosphate esters with excellent solvent and impact resistance
INVENTOR(S): Matsumoto, Kazuaki
PATENT ASSIGNEE(S): Kanegafuchi Chemical Industry Co., Ltd., Japan
SOURCE: Jpn. Kokai Tokkyo Koho, 14 pp.
CODEN: JKXXAF
DOCUMENT TYPE: Patent
LANGUAGE: Japanese
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

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PATENT NO.      KIND      DATE      APPLICATION NO.      DATE
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JP 2000119502    A      20000425    JP 1998-293851      19981015
                                     <--
PRIORITY APPLN. INFO.:      JP 1998-293851      19981015
                                     <--

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ED Entered STN: 25 Apr 2000

AB The compns. contain 100 parts mixts. of polycarbonates (A) and copolymers (B) derived from 90-99.9% aromatic vinyl monomers, cyanated vinyl monomers, alkyl (meth)acrylates, N-substituted maleimides, and/or other monomers and 0.1-10% unsatd. carboxylic acids and/or anhydrides, 0.1-30 parts phosphate ester fireproofing agents, 0.1-15

- parts olefin-C1-10 alkyl (meth)acrylate-glycidyl (meth)acrylate copolymers, and compds. selected from silicones 0.1-50, silicate salts 0.1-100, and fluoropolymers 0.005-5 parts, where the weight ratio of A/B is 95/5-50/50. Thus, a composition containing bisphenol A polycarbonate 80, 50:47:3 styrene-phenylmaleimide-maleic anhydride copolymer 20, tri-Ph phosphate 9.0, Bondfast 7M (ethylene-Me acrylate-**glycidyl methacrylate** copolymer) 4.0, talc 0.5, and Polyflon FA 500 (PTFE) 0.3 part was molded into a test piece showing UL-94 rating V-0, Izod impact strength 520 J/m, and good solvent and weather resistance.
- IC ICM C08L069-00
ICS C08K005-521; C08L025-08; C08L033-02; C08L033-06; C08L033-20; C08L035-00; C08L063-00; C08L083-00
- CC 37-6 (**Plastics** Manufacture and Processing)
- ST fire resistance polycarbonate phosphate ester; maleimide maleic anhydride copolymer polycarbonate blend; **glycidyl methacrylate** copolymer polycarbonate solvent resistance
- IT **Silsesquioxanes**
(epoxy-containing, DC 4-7051; flame retardant polycarbonate compns. containing phosphate esters with good solvent, impact, and weather resistance)
- IT **Impact-resistant materials**
Impact-resistant materials
(fire-resistant; flame retardant polycarbonate compns. containing phosphate esters with good solvent, impact, and weather resistance)
- IT **Fire-resistant materials**
Fire-resistant materials
(**impact**-resistant; flame retardant polycarbonate compns. containing phosphate esters with good solvent, impact, and weather resistance)
- IT 115-86-6, TPP 9002-84-0, Polyflon FA 500 14807-96-6, Talcan PK, uses 51109-15-0, Butyl acrylate-ethylene-**glycidyl methacrylate** copolymer 51541-08-3, Bondfast 7M 93981-32-9, Bisphenol A-bis(dicresyl) phosphate 139189-30-3, Resorcinol bis(di-2,6-xylyl) phosphate
(flame retardant polycarbonate compns. containing phosphate esters with good solvent, impact, and weather resistance)
- IT 9011-13-6, Maleic anhydride-styrene copolymer 24936-68-3, properties 25037-45-0, Bisphenol A polycarbonate 31669-09-7, Acrylonitrile-**methacrylic** acid α -methylstyrene copolymer 95877-36-4, Maleic anhydride-N-phenylmaleimide-styrene copolymer
(flame retardant polycarbonate compns. containing phosphate esters with good solvent, impact, and weather resistance)

L55 ANSWER 32 OF 49 HCAPLUS COPYRIGHT 2007 ACS on STN

ACCESSION NUMBER: 2000:208282 HCAPLUS

DOCUMENT NUMBER: 132:335248

TITLE: Organic/inorganic nanocomposites with completely defined interfacial interactions from cubic silsesquioxanes

AUTHOR(S): Laine, R. M.; Choi, J.; Costa, R. O. R.

CORPORATE SOURCE: Department of Materials Science and Eng., Chemistry and the Macromolecular Science and Eng. Center, University of Michigan, Ann Arbor, MI, 48109-2136, USA

SOURCE: Polymer Preprints (American Chemical Society, Division of Polymer Chemistry) (2000), 41(1), 524-525

CODEN: ACPPAY; ISSN: 0032-3934

PUBLISHER: American Chemical Society, Division of Polymer Chemistry

DOCUMENT TYPE: Journal
LANGUAGE: English
ED Entered STN: 31 Mar 2000
AB Octasilsesquioxanes [(RSiO_{1.5})₈, cubes] offer potential as rigid nanoplatforms to which various functional groups (R = epoxy, **methacryloyl**, etc.) can be appended. Octafunctional macromonomers can be synthesized and polymerized or copolymd. to form nanocomposites wherein the architecture and length of the organic tether or polymer phase between cubes is completely defined. By manipulating the structure of organic component, one can probe the effects of changes in organic nanostructure on interfacial interactions at the cube through studies of macroscopic properties. The synthesis, processing and properties of cube nanocomposites are described, especially selected nanocomposites that exhibit nanoporosity; good-to-excellent mech., CTE and thin film properties, and much improved thermal stability (vs. wholly organic composites).
CC 37-3 (**Plastics** Manufacture and Processing)
IT **Silsesquioxanes**
(epoxy functional, methylenedianiline-crosslinked; organic/inorg. nanocomposites of crosslinked silsesquioxane cube)
IT **Impact-resistant materials**
Impact-resistant materials
(heat-resistant; organic/inorg. nanocomposites of crosslinked silsesquioxane cube)
IT **Heat-resistant materials**
Heat-resistant materials
(**impact**-resistant; organic/inorg. nanocomposites of crosslinked silsesquioxane cube)
REFERENCE COUNT: 7 THERE ARE 7 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L55 ANSWER 33 OF 49 HCAPLUS COPYRIGHT 2007 ACS on STN

ACCESSION NUMBER: 2000:62683 HCAPLUS
DOCUMENT NUMBER: 132:109110
TITLE: Modified silicone-containing resin compositions and moldings and parts made from them
INVENTOR(S): Fujimoto, Masaji; Nabeshima, Yasuhiko
PATENT ASSIGNEE(S): Mitsubishi Rayon Co., Ltd., Japan
SOURCE: Jpn. Kokai Tokkyo Koho, 7 pp.
CODEN: JKXXAF
DOCUMENT TYPE: Patent
LANGUAGE: Japanese
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
JP 2000026734	A	20000125	JP 1999-123024	19990428

PRIORITY APPLN. INFO.: JP 1998-126383 A 19980508
<--

ED Entered STN: 26 Jan 2000

AB The moldings and parts with good resistance to fire, heat, impact, wear and weather, are made from curable resin compns. comprising (A) 1-80% a graft-crosslinked cyclic organosiloxanes and 20-99% vinyl polymers containing >50% **Me methacrylate**. Thus, homogenizing a cyclic di-Me siloxane oligomer 80 with γ -**methacryloxypropylmethyldimethoxysilane** 20, Na dodecylbenzenesulfonate 0.7, dodecylbenzenesulfonic acid 0.7 and water

300 parts, mixing the resulting emulsion at 90° for 6 h, cooling, extracting and combining 75 parts the resulting modified silicone with 425 parts **Me methacrylate** gave a syrup.

Mixing 0.15 part AIBN with 150 parts the syrup, deaerating, heating at 60° for 3 h in a closed container, and heating at 130° in open air for 2 h gave a plate showing Dynstat impact 40 kJ/m², flexural modulus 2000 MPa, total light transmittance 90%, and burn speed 20 mm/min (no dripping).

IC ICM C08L083-07

ICS C08F290-00; C08L033-12

CC 38-3 (**Plastics** Fabrication and Uses)

IT Heat-resistant materials

Impact-resistant materials

Transparent materials

(modified silicone-containing resin compns. and moldings and parts made from them)

IT **Silsesquioxanes**

Silsesquioxanes

(siloxane-, vinyl grafted; modified silicone-containing resin compns. and moldings and parts made from them)

IT 9011-14-7, PMMA 14513-34-9D, γ - **Methacryloxypropylmethyldi**

methoxysilane, graft polymers with cyclic organosiloxanes

(modified silicone-containing resin compns. and moldings and parts made from them)

L55 ANSWER 34 OF 49 HCAPLUS COPYRIGHT 2007 ACS on STN

ACCESSION NUMBER: 2000:43488 HCAPLUS

DOCUMENT NUMBER: 132:94770

TITLE: Low-temperature curable silicone coating compositions containing photocatalysts with good pot life and film durability

INVENTOR(S): Nanba, Yoichi; Murase, Noriko; Hmori, Masahiro

PATENT ASSIGNEE(S): Showa Denko K. K., Japan

SOURCE: Jpn. Kokai Tokkyo Koho, 10 pp.

CODEN: JKXXAF

DOCUMENT TYPE: Patent

LANGUAGE: Japanese

PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
JP 2000017230 A		20000118	JP 1998-187766	19980702

ED Entered STN: 18 Jan 2000

AB The composition comprises (A) a photocatalyst, (B) a photocationically polymerizable silicone-based composition and (C) an organic solvent and water. Thus, 10 parts binder obtained from hydrolyzed vinyltriethoxysilane prepolymer (Mw 500) 3-methacryloxypropyltrimethoxysilane and tetramethoxysilane was mixed with 320 parts NTS 11 (TiO₂ sol dispersion), coated onto glass plate and UV-cured, showing good storage stability, adhesion and film durability.

IT 169501-72-8P 254989-62-3P

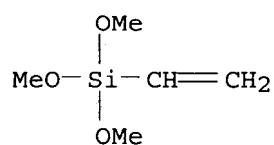
(low-temperature curable silicone coating compns. containing photocatalysts with good pot life and film durability)

RN 169501-72-8 HCAPLUS

CN 2-Propenoic acid, 2-methyl-, 3-(trimethoxysilyl)propyl ester, polymer with ethenyltrimethoxysilane and silicic acid (H₄SiO₄) tetraethyl ester (9CI) (CA INDEX NAME)

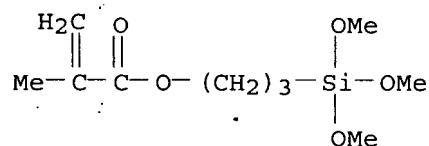
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CRN 2768-02-7
CMF C5 H12 O3 Si



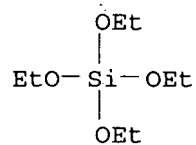
CM 2

CRN 2530-85-0
CMF C10 H20 O5 Si



CM 3

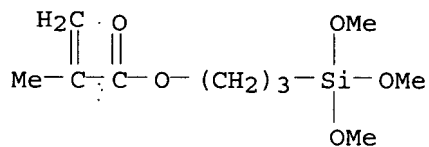
CRN 78-10-4
CMF C8 H20 O4 Si



RN 254989-62-3 HCAPLUS
CN 2-Propenoic acid, 2-methyl-, 3-(trimethoxysilyl)propyl ester, polymer
with ethenyltriethoxysilane and silicic acid (H4SiO4) tetramethyl
ester (9CI) (CA INDEX NAME)

CM 1

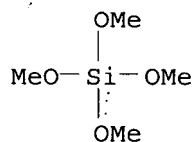
CRN 2530-85-0
CMF C10 H20 O5 Si



CM 2

CRN 681-84-5

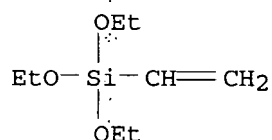
CMF C4 H12 O4 Si



CM 3

CRN 78-08-0

CMF C8 H18 O3 Si



IT 9011-14-7, Parapet HR 1000

(substrate; low-temperature curable silicone coating compns. containing photocatalysts with good pot life and film durability)

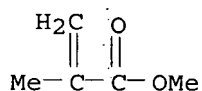
RN 9011-14-7 HCAPLUS

CN 2-Propenoic acid, 2-methyl-, methyl ester, homopolymer (CA INDEX NAME)

CM 1

CRN 80-62-6

CMF C5 H8 O2



IC ICM C09D183-04

ICS B01J021-06; B01J035-02

CC 42-10 (Coatings, Inks, and Related Products)

Section cross-reference(s): 35, 67, 74

IT Silsesquioxanes

(acrylic; low-temperature curable silicone coating compns. containing photocatalysts with good pot life and film durability)

IT 169501-72-8P 254989-62-3P

(low-temperature curable silicone coating compns. containing photocatalysts with good pot life and film durability)

IT 9011-14-7, Parapet HR 1000 25038-59-9, Polyethylene

terephthalate, miscellaneous 254993-03-8, Panlite L 1225V

(substrate; low-temperature curable silicone coating compns. containing photocatalysts with good pot life and film durability)

L55 ANSWER 35 OF 49 HCAPLUS COPYRIGHT 2007 ACS on STN

ACCESSION NUMBER: 2000:10653 HCAPLUS

DOCUMENT NUMBER: 132:79313
 TITLE: Thermoplastic resin composition
 INVENTOR(S): Aoyama, Taizo; Kimura, Katsuhiko
 PATENT ASSIGNEE(S): Kaneka Corporation, Japan
 SOURCE: U.S., 17 pp., Cont.-in-part of U.S. 5,834,563.
 CODEN: USXXAM
 DOCUMENT TYPE: Patent
 LANGUAGE: English
 FAMILY ACC. NUM. COUNT: 3
 PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
US 6011116	A	20000104	US 1997-940008	19970929
JP 09302169	A	19971125	JP 1996-113697	19960508
JP 3545532	B2	20040721		
JP 10101869	A	19980421	JP 1996-262788	19961003
JP 3545548	B2	20040721		
US 5834563	A	19981110	US 1997-852164	19970506
PRIORITY APPLN. INFO.:			JP 1996-113697	A 19960508
			JP 1996-262788	A 19961003
			US 1997-852164	A2 19970506

ED Entered STN: 06 Jan 2000

AB A thermoplastic resin composition comprises a thermoplastic resin and composite rubber particles and/or a graft copolymer. The composite rubber particles comprise an isobutylene elastomer or oil and vinyl polymer other than the isobutylene elastomer or oil. The composite rubber particles have a structure that the isobutylene elastomer or oil and vinyl polymer are entangled with each other so as not to be separated, the composite rubber particles being in the form of particle having an average particle size of 0.05 to 10 mm and having a gel content not less than 20%, and the graft copolymer is prepared by graft-polymerizing a vinyl monomer to the composite rubber particles,. The thermoplastic resin is selected from the group consisting of polyolefin resins, poly(Me methacrylate), poly(vinyl chloride), polycarbonate, polyester, a mixture of polycarbonate and polyester, polyamide, polystyrene, poly(phenylene ether), a mixture of polystyrene and poly(phenylene ether), polyacetal, polysulfone, polyphenylene sulfide, polyimide, polyether ketone, polyarylate, and homopolymers or copolymers obtained by polymerizing 70 to 100% of at least one of vinyl monomers of aromatic alkenyl compds., cyanided vinyl compds. and (meth)acrylates with 30 to 0% of other vinyl monomer copolymerizable with at least one of the vinyl monomer and a diene monomer, and the vinyl polymer is selected from the group consisting of acrylates, methacrylates, aromatic alkenyl compds. and cyanided vinyl compds. The thermoplastic resin composition exhibits good impact resistance with maintaining excellent transparency, weather resistance and thermal stability.

IT 205037-18-9P 205037-19-0P 253585-60-3P,
 Allyl methacrylate-butyl acrylate-isobutylene-(3-methacryloyloxypropyl)trimethoxysilane graft copolymer
 253585-61-4P

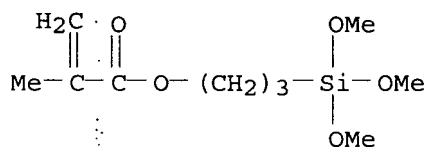
(thermoplastic resin composition)
 RN 205037-18-9 HCAPLUS

CN 2-Propenoic acid, 2-methyl-, methyl ester, polymer with butyl
2-propenoate, 2-methyl-1-propene, 2-propenyl 2-methyl-2-propenoate and
3-(trimethoxysilyl)propyl 2-methyl-2-propenoate, graft (9CI) (CA
INDEX NAME)

CM 1

CRN 2530-85-0

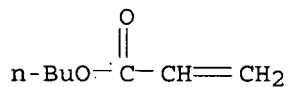
CMF C10 H20 O5 Si



CM 2

CRN 141-32-2

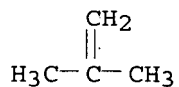
CMF C7 H12 O2



CM 3

CRN 115-11-7

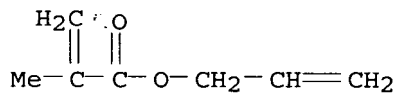
CMF C4 H8



CM 4

CRN 96-05-9

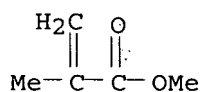
CMF C7 H10 O2



CM 5

CRN 80-62-6

CMFC5H8O2



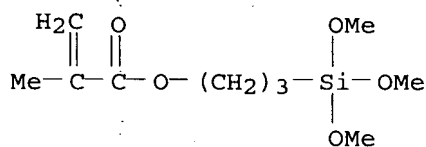
RN 205037-19-0 HCAPLUS

CN 2-Propenoic acid, 2-methyl-, 2-propenyl ester, polymer with ethenylbenzene, 2-methyl-1-propene and 3-(trimethoxysilyl)propyl 2-methyl-2-propenoate, graft (9CI) (CA INDEX NAME)

CM 1

CRN 2530-85-0

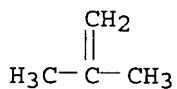
CMF C10 H20 O5 Si



CM 2

CRN 115-11-7

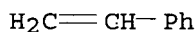
CMF C4 H8



CM 3

CRN 100-42-5

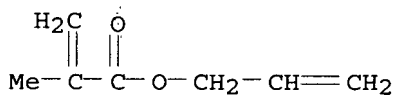
CMF C8 H8



CM 4

CRN 96-05-9

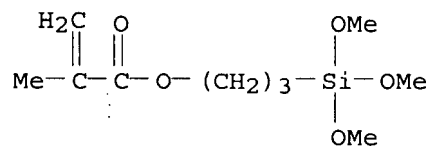
CMF C7 H10 O2



RN 253585-60-3 HCAPLUS

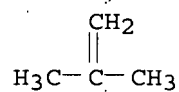
CN 2-Propenoic acid, 2-methyl-, 2-propenyl ester, polymer with butyl

CRN 2530-85-0
CMF C10 H20 O5 Si



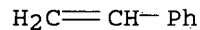
CM 2

CRN 115-11-7
CMF C4 H8



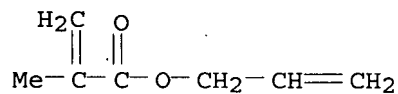
CM 3

CRN 100-42-5
CMF C8 H8



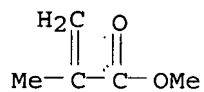
CM 4

CRN 96-05-9
CMF C7 H10 O2



CM 5

CRN 80-62-6
CMF C5 H8 O2



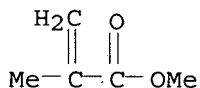
IT 9011-14-7, Poly(methyl methacrylate)
(thermoplastic resin composition)
RN 9011-14-7 HCAPLUS

CN 2-Propenoic acid, 2-methyl-, methyl ester, homopolymer (CA INDEX NAME)

CM 1

CRN 80-62-6

CMF C5 H8 O2



IC ICM C08L009-00

INCL 525086000

CC 37-6 (Plastics Manufacture and Processing)
Section cross-reference(s): 39

IT **Impact-resistant materials**
(thermoplastic resin composition)

IT 198778-67-5P, Allyl methacrylate butene butyl acrylate isobutylene methyl methacrylate graft copolymer 205037-17-8P
205037-18-9P 205037-19-0P. 253585-59-0P, Allyl methacrylate-butyl acrylate-isobutylene graft copolymer
253585-60-3P, Allyl methacrylate-butyl acrylate-isobutylene-(3-methacryloyloxypropyl)trimethoxysilane graft copolymer
253585-61-4P

(thermoplastic resin composition)

IT 9002-86-2, S 1008 9002-88-4, Polyethylene 9003-07-0, Noblen D 501
9003-53-6, Polystyrene 9011-14-7, Poly(methyl methacrylate)
9011-87-4, Parapet G 1000 24936-68-3, L-1250, properties
24968-12-5, Duranex 2002 25037-45-0, Bisphenol A-carbonic acid copolymer 26007-55-6, Apel 6013 26062-94-2, 1,4-Butanediol-terephthalic acid copolymer

(thermoplastic resin composition)

REFERENCE COUNT: 27 THERE ARE 27 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L55 ANSWER 36 OF 49 HCAPLUS COPYRIGHT 2007 ACS on STN

ACCESSION NUMBER: 1999:375601 HCAPLUS

DOCUMENT NUMBER: 131:6047

TITLE: Flame retardants for styrene resins and flame-retardant styrene resin composition

INVENTOR(S): Iwata, Masuo; Watanabe, Masami; Takebayashi, Takafumi; Narita, Noriaki; Watanabe, Taiki; Wang, Guofang

PATENT ASSIGNEE(S): Chisso Corporation, Japan

SOURCE: PCT Int. Appl., 56 pp.

CODEN: PIXXD2

DOCUMENT TYPE: Patent

LANGUAGE: Japanese

FAMILY ACC. NUM. COUNT: 1

PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 9928382	A1	19990610	WO 1998-JP5444	19981202

<--

W: JP, KR, US

RW: AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC,
NL, PT, SE

EP 1036815 A1 20000920 EP 1998-957140 19981202
<--

R: DE, FR, IT
PRIORITY APPLN. INFO.:

JP 1997-348488 A 19971203

<--

JP 1998-108573 A 19980403

<--

JP 1998-153770 A 19980519

<--

WO 1998-JP5444 W 19981202

<--

OTHER SOURCE(S): MARPAT 131:6047

ED Entered STN: 17 Jun 1999

AB The flame retardants comprise polyamides and P compds. at least containing a non-halogenated phosphate ester. The compns. have good flame retardance and impact resistance, and are useful for household elec. appliances, office automation machines, automobile parts and rolling stocks, etc. Thus, a composition comprising Ube Nylon 1013B (nylon 6) 30, tri-Ph phosphate 10, Terraju C 60 (coated polyphosphate) 20, and R 63 (HIPS) 40 parts gave test pieces with flammability rating V-0, and notched Izod impact strength 5.0 kJ/m2.

IC ICM C08L025-02

ICS C08L051-04; C08L055-02; C08K003-02; C08K005-521; C08K005-34

CC 37-6 (Plastics Manufacture and Processing)

IT **Silsesquioxanes**

(epoxy-containing, DC-4-7051; flame retardants containing P compds. and polyamides and impact-resistant styrene resin compns. using them)

IT Fireproofing agents

Impact-resistant materials

(flame retardants containing P compds. and polyamides and impact-resistant styrene resin compns. using them)

IT **Silsesquioxanes**

(**methacrylate-**, DC-4-7081; flame retardants containing P compds. and polyamides and impact-resistant styrene resin compns. using them)

IT 9002-84-0, Teflon 6J 24936-41-2, Poly(p-methylstyrene) 24938-67-8, Noryl 534 25034-86-0, **Methyl methacrylate**

-styrene copolymer 25053-09-2, Butadiene-**methy**

methacrylate-styrene copolymer 25213-88-1, Acrylonitrile-

methyl **methacrylate**-styrene copolymer 32505-24-1,

Acrylonitrile-ethylene-propylene-styrene copolymer 105729-79-1,

Isoprene-styrene block copolymer 105729-79-1D, Isoprene-styrene

block copolymer, hydrogenated 106107-54-4, Butadiene-styrene block

copolymer 106107-54-4D, Butadiene-styrene block copolymer,

hydrogenated 106108-28-5, Butylene-ethylene-styrene block copolymer

106108-28-5D, Butylene-ethylene-styrene block copolymer, hydrogenated

(styrene resin blends; flame retardants containing P compds. and polyamides and impact-resistant styrene resin compns. using them)

REFERENCE COUNT: 7

THERE ARE 7 CITED REFERENCES AVAILABLE FOR
THIS RECORD. ALL CITATIONS AVAILABLE IN THE
RE FORMAT

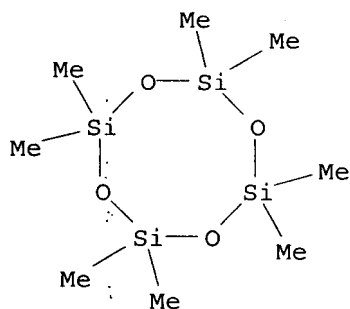
L55 ANSWER 37 OF 49 HCAPLUS COPYRIGHT 2007 ACS on STN

ACCESSION NUMBER: 1999:331422 HCAPLUS

DOCUMENT NUMBER: 131:19777

TITLE: Impact-resistant thermoplastic resin compositions
containing grafted isobutylene-siloxane rubbers

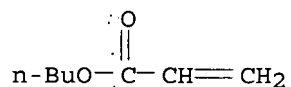
INVENTOR(S): Aoyama, Taizo; Kimura, Katsuhiko



CM 3

CRN 141-32-2

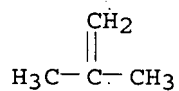
CMF C7 H12 O2



CM 4

CRN 115-11-7

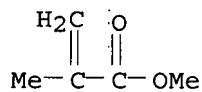
CMF C4 H8



CM 5

CRN 80-62-6

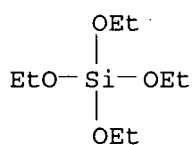
CMF C5 H8 O2



CM 6

CRN 78-10-4

CMF C8 H20 O4 Si



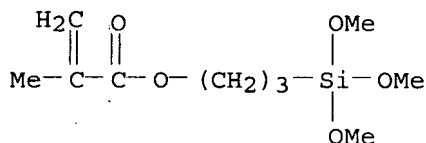
RN 226225-00-9 HCAPLUS

CN 2-Propenoic acid, 2-methyl-, methyl ester, polymer with butyl
2-propenoate, 2-methyl-1-propene, octamethylcyclotetrasiloxane,
2-propenyl 2-methyl-2-propenoate, silicic acid (H₄SiO₄) tetraethyl
ester and 3-(trimethoxysilyl)propyl 2-methyl-2-propenoate, graft (9CI)
(CA INDEX NAME)

CM 1

CRN 2530-85-0

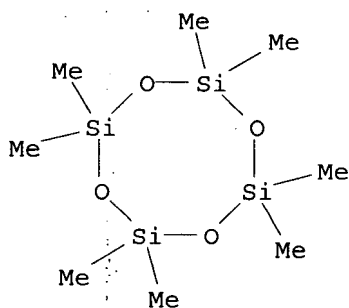
CMF C10 H20 O5 Si



CM 2

CRN 556-67-2

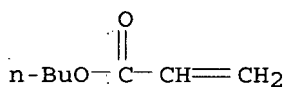
CMF C8 H24 O4 Si4



CM 3

CRN 141-32-2

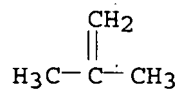
CMF C7 H12 O2



CM 4

CRN 115-11-7

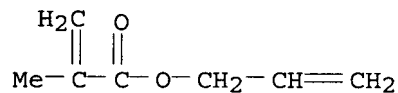
CMF C4 H8



CM 5

CRN 96-05-9

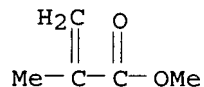
CMF C7 H10 O2



CM 6

CRN 80-62-6

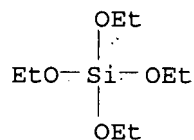
CMF C5 H8 O2



CM 7

CRN 78-10-4

CMF C8 H20 O4 Si



IT 9011-14-7, Poly(methyl methacrylate)
 (impact-resistant thermoplastic resin compns. containing grafted
 isobutylene-siloxane rubbers)

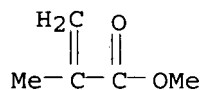
RN 9011-14-7 HCAPLUS

CN 2-Propenoic acid, 2-methyl-, methyl ester, homopolymer (CA INDEX
 NAME)

CM 1

CRN 80-62-6

CMF C5 H8 O2



IC ICM C08L019-00
 CC 37-6 (**Plastics** Manufacture and Processing)
 Section cross-reference(s): 39
 IT **Impact-resistant materials**
 (impact-resistant thermoplastic resin compns. containing
 grafted isobutylene-siloxane rubbers)
 IT **Silsesquioxanes**
 (polysiloxane-silicate-, acrylic, graft, impact resistance
 improvers; impact-resistant thermoplastic resin compns. containing
 grafted isobutylene-siloxane rubbers)
 IT **Silsesquioxanes**
 (silicate-polysiloxane-, acrylic, graft, impact resistance
 improvers; impact-resistant thermoplastic resin compns. containing
 grafted isobutylene-siloxane rubbers)
 IT **226224-99-3P 226225-00-9P**
 (impact resistance improver; impact-resistant thermoplastic resin
 compns. containing grafted isobutylene-siloxane rubbers)
 IT 9003-07-0, Noblen D 501 9003-53-6, Polystyrene 9003-54-7,
 Acrylonitrile-styrene copolymer **9011-14-7**, Poly(
methyl methacrylate) 24968-12-5, Duranex 2002
 25037-45-0 26062-94-2
 (impact-resistant thermoplastic resin compns. containing grafted
 isobutylene-siloxane rubbers)

L55 ANSWER 38 OF 49 HCAPLUS COPYRIGHT 2007 ACS on STN
 ACCESSION NUMBER: 1999:113729 HCAPLUS
 DOCUMENT NUMBER: 130:154871
 TITLE: Graft copolymer particles and thermoplastic resin
 compositions
 INVENTOR(S): Miyatake, Nobuo; Takikawa, Kazunori; Nakamori,
 Daisuke; Hamaguchi, Shigeki; Hosoi, Hideki
 PATENT ASSIGNEE(S): Kaneka Corporation, Japan
 SOURCE: PCT Int. Appl., 75 pp.
 CODEN: PIXXD2
 DOCUMENT TYPE: Patent
 LANGUAGE: Japanese
 FAMILY ACC. NUM. COUNT: 1
 PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 9906457	A1	19990211	WO 1998-JP3304	19980724
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W: CA, CN, KR, US				
RW: AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE				
CA 2266506	A1	19990211	CA 1998-2266506	19980724
<--				
CA 2266506	C	20050927		
JP 11100481	A	19990413	JP 1998-209689	19980724
<--				
JP 3634964	B2	20050330		

EP 943635	A1	19990922	EP 1998-933918	19980724
			<--	
EP 943635	B1	20041110		
R: BE, DE, FR, GB, IT, NL				
TW 570936	B	20040111	TW 1998-87112232	19980727
			<--	
US 6153694	A	20001128	US 1999-269331	19990325
			<--	
PRIORITY APPLN. INFO.:			JP 1997-203139	A 19970729
			<--	
			WO 1998-JP3304	W 19980724
			<--	

ED Entered STN: 19 Feb 1999

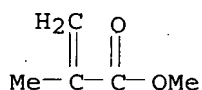
AB Graft copolymer particles having impact resistance, weathering resistance, processability, thermal discoloration resistance and appearance of moldings for modifying thermoplastic resins are prepared from a vinyl monomer and silicone rubber latex/acrylic rubber latex (and/or a conjugated diene rubber latex) mixture. Thus, a silicone rubber latex 20 parts (prepared from octamethylcyclotetrasiloxane 20, mercaptopropyltrimethoxymethylsilane 0.4, tetraethoxysilane 0.2), a Bu acrylate-allyl methacrylate (100/1) rubber latex 80 and Bu acrylate-Bu methacrylate-methacrylic acid copolymer 3.5 parts were mixed to give an expanded latex, 60 parts of which was reacted with styrene 30, acrylonitrile 10 for a graft copolymer latex with solids 29%, average diameter 350 nm, and gel content 90%, which was dried, injection-molded, showing Izod impact 19 (23°) and 8 kg·cm/cm (-30°).

IT 80-62-6DP, Methyl methacrylate, graft copolymer with silicone/acrylic rubber

(graft copolymer particles of silicone rubber/acrylic rubber with vinyl monomers and thermoplastic resin compns.)

RN 80-62-6 HCAPLUS

CN 2-Propenoic acid, 2-methyl-, methyl ester (CA INDEX NAME)



IT 9011-14-7, PMMA

(graft copolymer particles of silicone rubber/acrylic rubber with vinyl monomers and thermoplastic resin compns.)

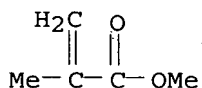
RN 9011-14-7 HCAPLUS

CN 2-Propenoic acid, 2-methyl-, methyl ester, homopolymer (CA INDEX NAME)

CM 1

CRN 80-62-6

CMF C5 H8 O2



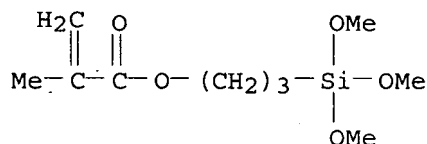
IT 205037-15-6P, Allyl methacrylate-butyl acrylate-γ-methacryloyloxypropyltrimethoxysilane copolymer

RN	205037-15-6	HCAPLUS
CN	2-Propenoic acid, 2-methyl-, 2-propenyl ester, polymer with butyl 2-propenoate and 3-(trimethoxysilyl)propyl 2-methyl-2-propenoate (9CI)	
	(CA INDEX NAME)	

CM 1

CRN 2530-85-0

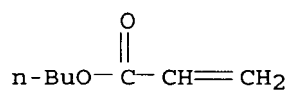
CMF C10 H20 O5 Si



CM 2

CRN 141-32-2

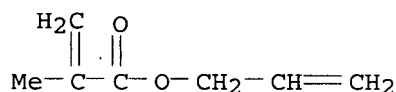
CMF C7 H12 O2



CM 3

CRN 96-05-9

CMF C7 H10 O2



IC ICM C08F291-02

ICS C08L051-04; C08L101-00

CC 39-15 (Synthetic Elastomers and Natural Rubber)

IT Impact-resistant materials

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(graft copolymer particles of silicone rubber/acrylic rubber with
vinyl monomers and thermoplastic resin compns.)

```

IT 80-62-6DP, Methyl methacrylate, graft copolymer with
silicone/acrylic rubber 100-42-5DP, Styrene, graft copolymer with
silicone/acrylic rubber 107-13-1DP, Acrylonitrile, graft copolymer
with silicone/acrylic rubber

(graft copolymer particles of silicone rubber/acrylic rubber with vinyl monomers and thermoplastic resin compns.)

IT 9002-86-2, Kanevinyl S 1008 9003-53-6, Polystyrene 9003-56-9, ABS
resin 9011-14-7, PMMA 24968-12-5, PBT 25034-86-0, Methyl
methacrylate-styrene copolymer 25747-74-4, Acrylonitrile- α -
methylstyrene copolymer 26062-94-2, PBT monomer-based 31621-07-5,

Acrylonitrile-N-phenylmaleimide-styrene copolymer
 (graft copolymer particles of silicone rubber/acrylic rubber with
 vinyl monomers and thermoplastic resin compns.)
 IT 26967-37-3P, Octamethylcyclotetrasiloxane-3-
 (methacryloyloxypropyl)dimethoxymethylsilane copolymer 61488-62-8P,
 Butyl acrylate-allyl methacrylate copolymer 121265-46-1P,
 Octamethylcyclotetrasiloxane-tetraethoxysilane copolymer
 205037-15-6P, Allyl methacrylate-butyl acrylate-γ-
 methacryloyloxypropyltrimethoxysilane copolymer 220137-46-2P
 (rubber latex; graft copolymer particles of silicone rubber/acrylic
 rubber with vinyl monomers and thermoplastic resin compns.)

REFERENCE COUNT: 2 THERE ARE 2 CITED REFERENCES AVAILABLE FOR
 THIS RECORD. ALL CITATIONS AVAILABLE IN THE
 RE FORMAT

L55 ANSWER 39 OF 49 HCAPLUS COPYRIGHT 2007 ACS on STN

ACCESSION NUMBER: 1999:99334 HCAPLUS

DOCUMENT NUMBER: 130:238778

TITLE: Hybrid pigments via sol-gel processing

AUTHOR(S): Hofacker, S.; Schottner, G.

CORPORATE SOURCE: Fraunhofer-Institut für Silicatforschung,
 Würzburg, D-97082, Germany

SOURCE: Journal of Sol-Gel Science and Technology (1998), 13(1/2/3), 479-484

CODEN: JSGTEC; ISSN: 0928-0707

PUBLISHER: Kluwer Academic Publishers

DOCUMENT TYPE: Journal

LANGUAGE: English

ED Entered STN: 15 Feb 1999

AB The incorporation of organic dyes into inorg. and hybrid sol-gel derived materials is a valuable method for the fabrication of colored layers for optical applications like filters, solar energy conversion, non-linear optical devices, and active laser media. There have been clear hints for photochem. stabilization of the organic dyes, and thus our aim was to investigate the light stability of organic dyes within hybrid solids. Besides the traditional way of doping sol-gel coatings with dyes, they were also covalently attached to aluminosiloxane polymer hybrid matrix and pigments were produced by spray-drying processes. The resulting spherical powders were investigated with respect to their morphol., structural, and photochem. properties. The results show that uniformly shaped and colored hybrid pigments can be synthesized. The spectroscopic studies demonstrate the fixation of the dye to the matrix and the high degree of crosslinking achieved in the composite. Addnl., the hybrid pigments drastically improve the resistance of the dye against bleeding from thermoplastic polymers. Furthermore, a higher photochem. stability of the dye is observed within the hybrid matrix compared to a solution, and purely organic or inorg. solid hosts.

IT 9011-14-7, PMMA

(preparation of hybrid organic polymeric pigments for)

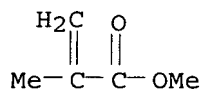
RN 9011-14-7 HCAPLUS

CN 2-Propenoic acid, 2-methyl-, methyl ester, homopolymer (CA INDEX NAME)

CM 1

CRN 80-62-6

CMF C5 H8 O2



IT 221237-79-2P 221237-88-3P

(preparation of hybrid organic polymeric pigments via sol-gel processing)

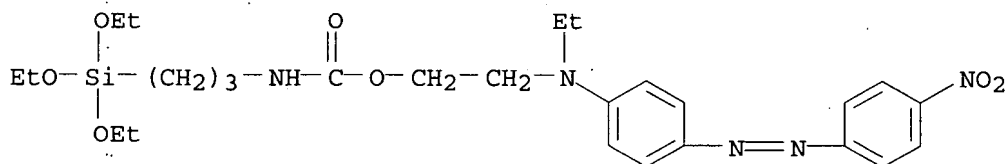
RN 221237-79-2 HCAPLUS

CN Carbamic acid, [3-(triethoxysilyl)propyl]-, 2-[ethyl[4-[(4-nitrophenyl)azo]phenyl]amino]ethyl ester, polymer with 2-butanol aluminum salt and trimethoxy[3-(oxiranylmethoxy)propyl]silane (9CI)
(CA INDEX NAME)

CM 1

CRN 147274-64-4

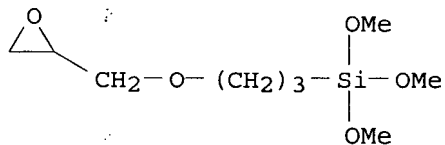
CMF C26 H39 N5 O7 Si



CM 2

CRN 2530-83-8

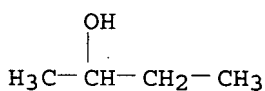
CMF C9 H20 O5 Si



CM 3

CRN 2269-22-9

CMF C4 H10 O . 1/3 Al



● 1/3 Al

RN 221237-88-3 HCAPLUS

CN 3,9-Perylenedipentanoic acid, bis[2-hydroxy-3-[(trimethoxysilyl)methoxy]propyl] ester, polymer with 2-butanol

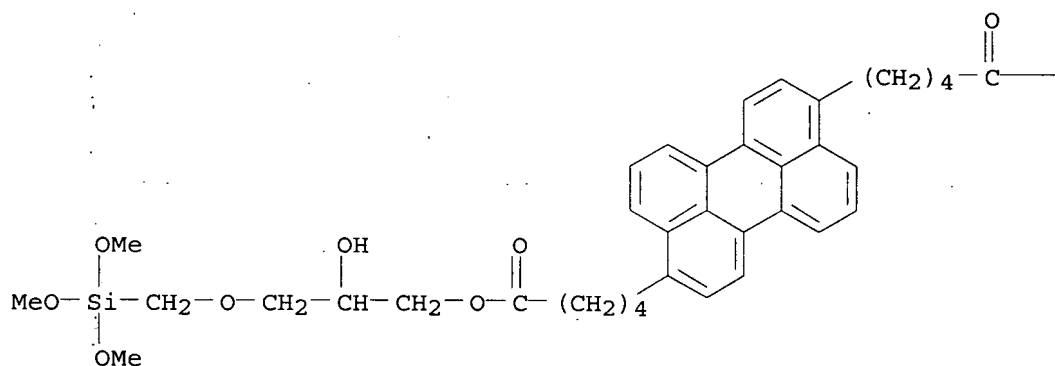
aluminum salt and trimethoxy[3-(oxiranylmethoxy)propyl]silane (9CI)
(CA INDEX NAME)

CM 1

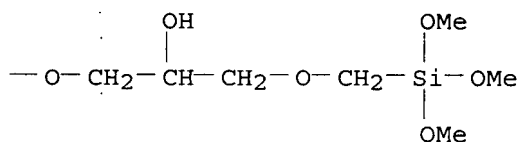
CRN 221237-72-5

CMF C44 H60 O14 Si2

PAGE 1-A



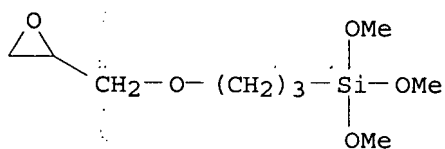
PAGE 1-B



CM 2

CRN 2530-83-8

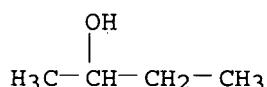
CMF C9 H20 O5 Si



CM 3

CRN 2269-22-9

CMF C4 H10 O 1/3 Al



● 1/3 A1

CC 41-11 (Dyes, Organic Pigments, Fluorescent Brighteners, and Photographic Sensitizers)
 Section cross-reference(s): 37, 42
 IT **Polymerization**
 (hydrolytic; in preparation of hybrid organic polymeric pigments via sol-gel processing)
 IT **9011-14-7, PMMA**
 (preparation of hybrid organic polymeric pigments for)
 IT **221237-79-2P 221237-88-3P**
 (preparation of hybrid organic polymeric pigments via sol-gel processing)
 REFERENCE COUNT: 19 THERE ARE 19 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L55 ANSWER 40 OF 49 HCAPLUS COPYRIGHT 2007 ACS on STN
 ACCESSION NUMBER: 1998:795628 HCAPLUS
 DOCUMENT NUMBER: 130:96336
 TITLE: Rigid heat- and impact-resistant thermoplastic polythioarylene resin compositions
 INVENTOR(S): Ueshima, Toshifumi; Maeda, Masaki; Ohtsuki, Toshitaka
 PATENT ASSIGNEE(S): JSR Co., Ltd., Japan
 SOURCE: Jpn. Kokai Tokkyo Koho, 13 pp.
 CODEN: JKXXAF
 DOCUMENT TYPE: Patent
 LANGUAGE: Japanese
 FAMILY ACC. NUM. COUNT: 1
 PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
JP 10330617	A	19981215	JP 1997-159335	19970603
JP 3799746	B2	20060719		
PRIORITY APPLN. INFO.:			JP 1997-159335	19970603

ED Entered STN: 21 Dec 1998
 AB The comps. comprise 100 parts of mixts. of (A) 40-100% polythioarylenes, (B) 0-60% norbornene polymers, (C) 0-30 parts copolymers containing olefin units and ≥1 functional group selected from CO₂H, acid anhydride, oxazoline, and epoxy, (D) 0.01-40 parts polysiloxanes containing SiO₂, and (E) 0-400 parts fillers. Thus, a composition containing polythiophenylene (Tohpren LN 1) 60, hydrogenated 8-methyl-8-methoxycarbonyltetracyclo[4.4.12,5.17,10]-3-dodecene homopolymer 40, ethylene-glycidyl methacrylate copolymer (Rexpearl RA 3150) 8, DC 4-7051 (silicone polymer composed of 50-70% silicone gum and 30-50% SiO₂, treated with an epoxy-containing silane coupling agent) 1, and 03MAFT523 (glass fiber) 95 parts was kneaded, and injection-molded to give a test piece with Vicat softening temperature 255°, melt-flow rate 50 g/10 min, Izod impact

strength 28 kg-cm/cm, and good mold releasability.

IC ICM C08L081-02
ICS C08L065-00; C08L081-02; C08L083-04

CC 37-6 (Plastics Manufacture and Processing)

IT **Silsesquioxanes**
(epoxy-containing, Dow Corning 4-7051; rigid heat- and impact-resistant thermoplastic polythioarylene resin compns.)

IT **Impact-resistant materials**
Impact-resistant materials
(heat-resistant; rigid heat- and impact-resistant thermoplastic polythioarylene resin compns.)

IT **Heat-resistant materials**
Heat-resistant materials
(**impact**-resistant; rigid heat- and impact-resistant thermoplastic polythioarylene resin compns.)

L55 ANSWER 41 OF 49 HCAPLUS COPYRIGHT 2007 ACS on STN

ACCESSION NUMBER: 1998:786225 HCAPLUS

DOCUMENT NUMBER: 130:66950

TITLE: Organopolysilsesquioxanes containing epoxy groups and their manufacture

INVENTOR(S): Matsuoka, Masaki; Murakami, Masatoshi

PATENT ASSIGNEE(S): Showa Denko K. K., Japan

SOURCE: Jpn. Kokai Tokkyo Koho, 9 pp.

CODEN: JKXXAF

DOCUMENT TYPE: Patent

LANGUAGE: Japanese

FAMILY ACC. NUM. COUNT: 1

PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
JP 10324749	A	19981208	JP 1997-137191	19970527

PRIORITY APPLN. INFO.: JP 1997-137191 19970527
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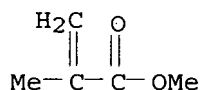
ED Entered STN: 15 Dec 1998

AB Title organopolysilsesquioxanes are manufactured by Michael addition of ≥ 75 mol% end-capped organopolysilsesquioxanes (Mn 5 + 102 - 1.5 + 104) having SH as all side chains with (A) ethylenically unsatd. compds. containing epoxy groups or (B) (1-99):(1-99) (molar ratio) mixts. of A and alkyl (meth)acrylates in the presence of radical initiators. Thus, γ -mercaptopropyltrimethoxysilane was hydrolyzed, silylated with hexamethyldisiloxane, and reacted with glycidyl methacrylate to give a silsesquioxane $[R_2SiO_3/2]$ (R = $C_3H_6SCH_2CMeHCO_2G$; G = glycidyl) end-capped with 20 mol% methoxy and 80 mol% trimethylsilyloxy.

IT **80-62-6DP**, Methyl methacrylate, reaction product with silsesquioxanes containing mercapto groups and glycidyl methacrylate
106-91-2DP, Glycidyl methacrylate, reaction products with silsesquioxanes containing mercapto groups **29295-80-5DP**, γ -Mercaptopropyltrimethoxysilane homopolymer, trimethylsilyl-terminated, reaction products with glycidyl methacrylate
(manufacture of epoxy-containing silsesquioxanes)

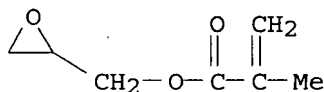
RN 80-62-6 HCAPLUS

CN 2-Propenoic acid, 2-methyl-, methyl ester (CA INDEX NAME)



RN 106-91-2 HCAPLUS

CN 2-Propenoic acid, 2-methyl-, 2-oxiranylmethyl ester (CA INDEX NAME)



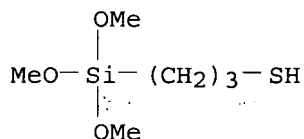
RN 29295-80-5 HCAPLUS

CN 1-Propanethiol, 3-(trimethoxysilyl)-, homopolymer (CA INDEX NAME)

CM 1

CRN 4420-74-0

CMF C6 H16 O3 S Si



IC ICM C08G077-38

ICS C08G077-14

CC 35-8 (Chemistry of Synthetic High Polymers)

Section cross-reference(s): 42

IT **Silsesquioxanes**

(epoxy-containing; manufacture of epoxy-containing silsesquioxanes)

IT **80-62-6DP**, Methyl methacrylate, reaction product with silsesquioxanes containing mercapto groups and glycidyl methacrylate
106-91-2DP, Glycidyl methacrylate, reaction products with silsesquioxanes containing mercapto groups 107-46-0DP, Hexamethyldisiloxane, reaction products with silsesquioxanes and glycidyl methacrylate **29295-80-5DP**, γ -Mercaptopropyltrimethoxysilane homopolymer, trimethylsilyl-terminated, reaction products with glycidyl methacrylate 167427-18-1DP, γ -Mercaptopropyltrimethoxysilane homopolymer, ladder sru, silylated, reaction product with glycidyl methacrylate (manufacture of epoxy-containing silsesquioxanes)

L55 ANSWER 42 OF 49 HCAPLUS COPYRIGHT 2007 ACS on STN

ACCESSION NUMBER: 1998:768115 HCAPLUS

DOCUMENT NUMBER: 130:53137

TITLE: Silicone-modified acrylic rubber particles, their graft copolymer particles, and impact- and weather-resistant thermoplastic compositions therefrom

INVENTOR(S): Miyatake, Nobuo; Yoshino, Hiroki; Hosoi, Hideki; Hatano, Takanori

PATENT ASSIGNEE(S): Kanegafuchi Chemical Industry Co., Ltd., Japan

SOURCE: Jpn. Kokai Tokkyo Koho, 23 pp.

DOCUMENT TYPE: CODEN: JKXXAF
 LANGUAGE: Patent
 FAMILY ACC. NUM. COUNT: Japanese
 1
 PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
JP 10316724	A	19981202	JP 1997-131403	19970521

PRIORITY APPLN. INFO.: JP 1997-131403 19970521
 <--

ED Entered STN: 08 Dec 1998

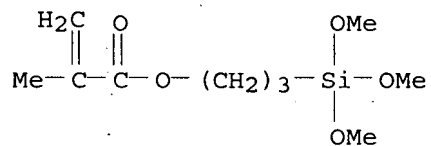
AB Title rubber particles (Q) with silicone rubber content $\leq 50\%$, are obtained by (1) graft copolymn. of (A) 45-5000 parts silicone rubber components prepared from low-mol. weight organosiloxanes 75-100, polyfunctional silanes 0-10, and copolymerizable silanes 0-15% with (B) 100 parts acrylic rubber particles prepared from (B1) C1-12 alkyl acrylates and/or C4-12 alkyl methacrylates 65-99.9, (B2) polyfunctional monomers having ≥ 2 unsatd. groups 0-5, (B3) monomers having unsatd. groups and reactive silyl 0.1-10, and (B4) monomers having unsatd. groups 0-20%, (2) copolymn. of the resultant modified acrylic rubber particles with (C) acrylic rubber components prepared from B1 65-99.8, B2 0.1-5, B3 0.1-10, B4 0-20%, and (3) reaction for forming chemical bonds between A and C at pH ≤ 5.0 . Title graft copolymer particles, useful for **impact modifiers**, are obtained by graft copolymering vinyl monomers onto Q or copolymering 5-95% Q with 5-95% of (90-99.9):(0.1-10) monomer mixts. of vinyl monomers and B3 and subsequently carrying out the reaction. The compns. contain thermoplastic resins and 2-150 phr of the graft copolymer particles. Thus, 35 parts octamethylcyclotetrasiloxane and 0.7 part tetraethoxysilane were copolymerized with acrylic rubber particles prepared from Bu acrylate 35, allyl methacrylate 0.18, and γ -methacryloyloxypropyltrimethoxysilane 0.35 part and subsequently copolymerized with styrene 21, acrylonitrile 9, and γ -methacryloyloxypropyldimethoxymethylsilane 0.35 part to give a graft copolymer showing average particle diameter 260 nm and gel content 97%. Then, a composition (rubber content 25%) comprising the graft copolymer and acrylonitrile-styrene copolymer was injection-molded to give a test piece showing Izod impact strength (ASTM D 256) 23 kgcm/cm initially and 20 kg-cm/cm after 500-h weathering test.

IT 189073-61-8P, Allyl methacrylate-butyl acrylate- γ -methacryloyloxypropyltrimethoxysilane-octamethylcyclotetrasiloxane-tetraethoxysilane copolymer 189073-70-9P, Allyl methacrylate-butyl acrylate- γ -methacryloyloxypropyldimethoxymethylsilane- γ -methacryloyloxypropyltrimethoxysilane-octamethylcyclotetrasiloxane-tetraethoxysilane copolymer 217300-10-2P, Allyl methacrylate-butyl acrylate- γ -methacryloyloxypropyldimethoxymethylsilane- γ -methacryloyloxypropyltrimethoxysilane-octamethylcyclotetrasiloxane copolymer (rubber; weather-resistant thermoplastic resin compns. containing acrylic polysiloxane graft copolymer particles as **impact modifiers**)

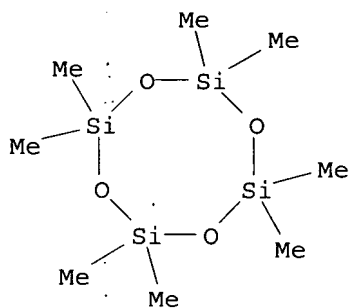
RN 189073-61-8 HCAPLUS

CN 2-Propenoic acid, 2-methyl-, 2-propenyl ester, polymer with butyl 2-propenoate, octamethylcyclotetrasiloxane, silicic acid (H₄SiO₄) tetraethyl ester and 3-(trimethoxysilyl)propyl 2-methyl-2-propenoate (9CI) (CA INDEX NAME)

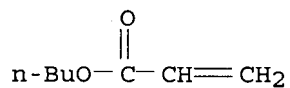
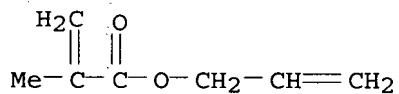
CMF C10 H20 O5 Si



CMF C8 H24 O4 Si4



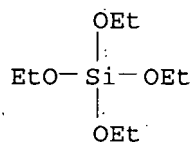
CMF C7 H12 O2

CMFC7H10O2

CM 5

CRN 78-10-4

CMF C8 H20 O4 Si



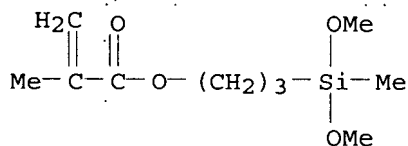
RN 189073-70-9 HCAPLUS

CN 2-Propenoic acid, 2-methyl-, 3-(dimethoxymethylsilyl)propyl ester, polymer with butyl 2-propenoate, octamethylcyclotetrasiloxane, 2-propenyl 2-methyl-2-propenoate, silicic acid (H₄SiO₄) tetraethyl ester and 3-(trimethoxysilyl)propyl 2-methyl-2-propenoate (9CI) (CA INDEX NAME)

CM 1

CRN 14513-34-9

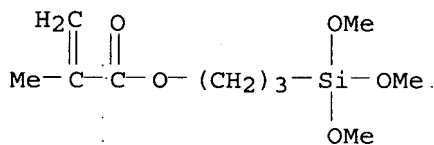
CMF C10 H20 O4 Si



CM 2

CRN 2530-85-0

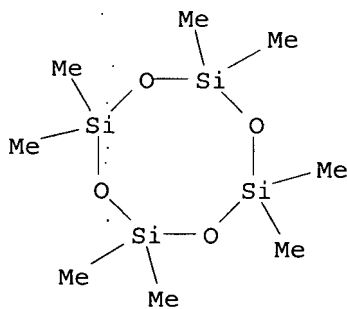
CMF C10 H20 O5 Si



CM 3

CRN 556-67-2

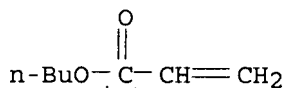
CMF C8 H24 O4 Si4



CM 4

CRN 141-32-2

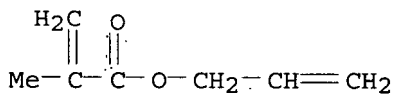
CMF C7 H12 O2



CM 5

CRN 96-05-9

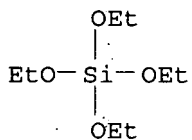
CMF C7 H10 O2



CM 6

CRN 78-10-4

CMF C8 H20 O4 Si



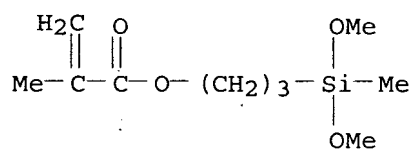
RN 217300-10-2 HCAPLUS

CN 2-Propenoic acid, 2-methyl-, 3-(dimethoxymethylsilyl)propyl ester, polymer with butyl 2-propenoate, octamethylcyclotetrasiloxane, 2-propenyl 2-methyl-2-propenoate and 3-(trimethoxysilyl)propyl 2-methyl-2-propenoate (9CI) (CA INDEX NAME)

CM 1

CRN 14513-34-9

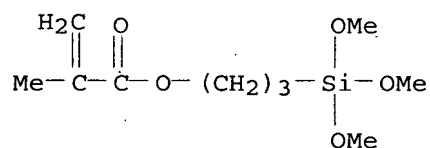
CMF C10 H20 O4 Si



CM 2

CRN 2530-85-0

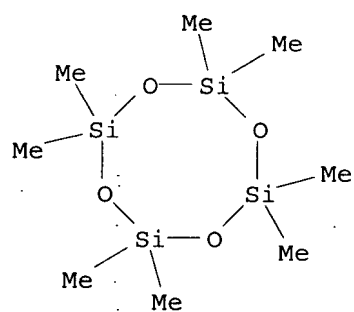
CMF C10 H20 O5 Si



CM 3

CRN 556-67-2

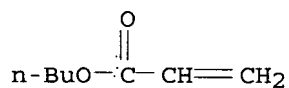
CMF C8 H24.04 Si4.



CM 4

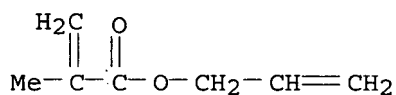
CRN 141-32-2

CMF C7 H12 O2



CM 5

CRN 96-05-9
CMF C7 H10 O2



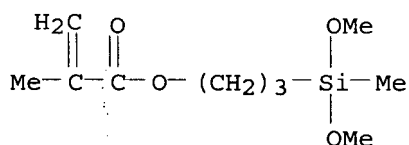
IT 189073-72-1P, Allyl methacrylate-butyl acrylate- γ -methacryloyloxypropyldimethoxymethylsilane- γ -methacryloyloxypropyltrimethoxysilane-methyl methacrylate-octamethylcyclotetrasiloxane-tetraethoxysilane graft copolymer 217300-07-7P, Acrylonitrile-allyl methacrylate-butyl acrylate- γ -methacryloyloxypropyldimethoxymethylsilane- γ -methacryloyloxypropyltrimethoxysilane-octamethylcyclotetrasiloxane-styrene-tetraethoxysilane graft copolymer 217300-08-8P, Allyl methacrylate-butyl acrylate- γ -methacryloyloxypropyldimethoxymethylsilane- γ -methacryloyloxypropyltrimethoxysilane-methyl methacrylate-octamethylcyclotetrasiloxane graft copolymer 217300-09-9P, Acrylonitrile-allyl methacrylate-butyl acrylate-methacrylic acid- γ -methacryloyloxypropyldimethoxymethylsilane- γ -methacryloyloxypropyltrimethoxysilane-octamethylcyclotetrasiloxane-styrene-tetraethoxysilane graft copolymer
(weather-resistant thermoplastic resin compns. containing acrylic polysiloxane graft copolymer particles as **impact modifiers**)

RN 189073-72-1 HCAPLUS

CN 2-Propenoic acid, 2-methyl-, 3-(dimethoxymethylsilyl)propyl ester, polymer with butyl 2-propenoate, methyl 2-methyl-2-propenoate, octamethylcyclotetrasiloxane, 2-propenyl 2-methyl-2-propenoate, silicic acid (H₄SiO₄) tetraethyl ester and 3-(trimethoxysilyl)propyl 2-methyl-2-propenoate, graft (9CI) (CA INDEX NAME)

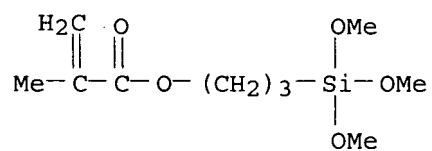
CM 1

CRN 14513-34-9
CMF C10 H20 O4 Si



CM 2

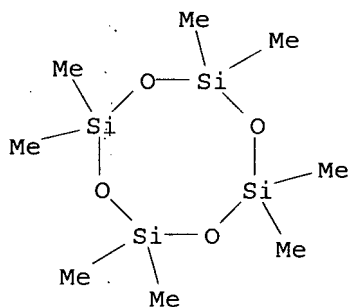
CRN 2530-85-0
CMF C10 H20 O5 Si



CM 3

CRN 556-67-2

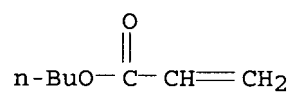
CMF C8 H24 O4 Si4



CM 4

CRN 141-32-2

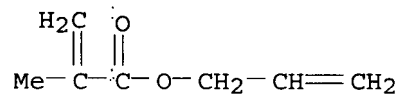
CMF C7 H12 O2



CM 5

CRN 96-05-9

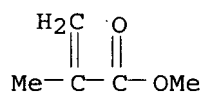
CMF C7 H10 O2



CM 6

CRN 80-62-6

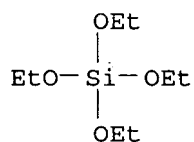
CMF C5 H8 O2



CM 7

CRN 78-10-4

CMF C8 H20 O4 Si



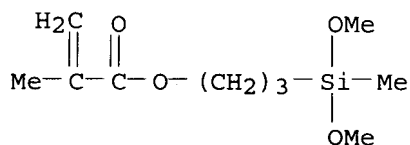
RN 217300-07-7 HCAPLUS

CN 2-Propenoic acid, 2-methyl-, 3-(dimethoxymethylsilyl)propyl ester, polymer with butyl 2-propenoate, ethenylbenzene, octamethylcyclotetrasiloxane, 2-propenenitrile, 2-propenyl 2-methyl-2-propenoate, silicic acid (H₄SiO₄) tetraethyl ester and 3-(trimethoxysilyl)propyl 2-methyl-2-propenoate, graft (9CI) (CA INDEX NAME)

CM 1

CRN 14513-34-9

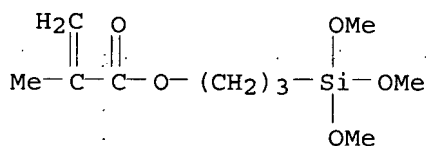
CMF C10 H20 O4 Si



CM 2

CRN 2530-85-0

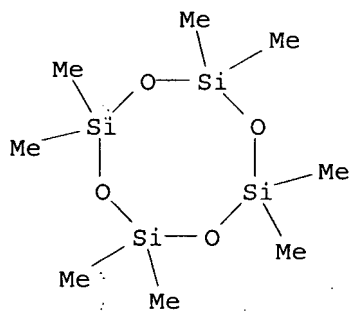
CMF C10 H20 O5 Si



CM 3

CRN 556-67-2

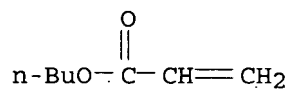
CMF C8 H24 O4 Si4



CM 4

CRN 141-32-2

CMF C7 H12 O2



CM 5

CRN 107-13-1

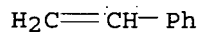
CMF C3 H3 N



CM 6

CRN 100-42-5

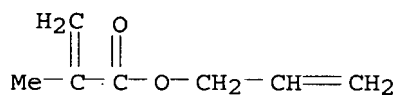
CMF C8 H8



CM 7

CRN 96-05-9

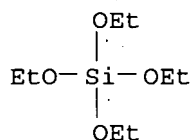
CMF C7 H10 O2



CM 8

CRN 78-10-4

CMF C8 H20 O4 Si



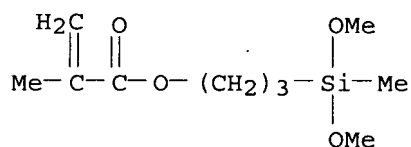
RN 217300-08-8 HCAPLUS

CN 2-Propenoic acid, 2-methyl-, 3-(dimethoxymethylsilyl)propyl ester, polymer with butyl 2-propenoate, methyl 2-methyl-2-propenoate, octamethylcyclotetrasiloxane, 2-propenyl 2-methyl-2-propenoate and 3-(trimethoxysilyl)propyl 2-methyl-2-propenoate, graft (9CI) (CA INDEX NAME)

CM 1

CRN 14513-34-9

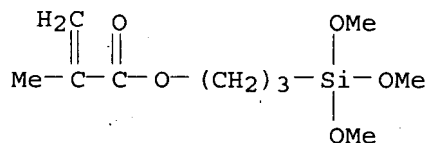
CMF C10 H20 O4 Si



CM 2

CRN 2530-85-0

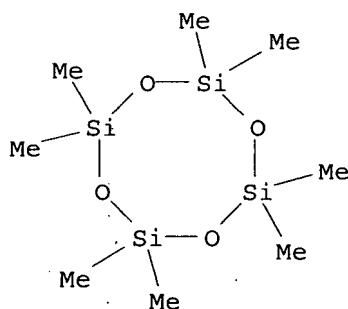
CMF C10 H20 O5 Si



CM 3

CRN 556-67-2

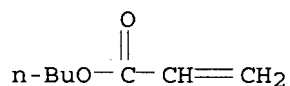
CMF C8 H24 O4 Si4



CM 4

CRN 141-32-2

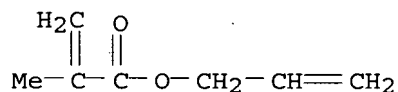
CMF C7 H12 O2



CM 5

CRN 96-05-9

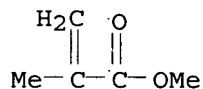
CMF C7 H10 O2



CM 6

CRN 80-62-6

CMF C5 H8 O2



RN 217300-09-9 HCAPLUS

CN 2-Propenoic acid, 2-methyl-, polymer with butyl 2-propenoate,
 3-(dimethoxymethylsilyl)propyl 2-methyl-2-propenoate, ethenylbenzene,
 octamethylcyclotetrasiloxane, 2-propenenitrile, 2-propenyl
 2-methyl-2-propenoate, silicic acid (H4SiO4) tetraethyl ester and
 3-(trimethoxysilyl)propyl 2-methyl-2-propenoate, graft (9CI) (CA
 INDEX NAME)

CM 1

$$\begin{array}{c} \text{H}_2\text{C} \quad \text{O} \\ \parallel \quad \parallel \\ \text{Me}-\text{C}-\text{C}-\text{O}-(\text{CH}_2)_3-\text{Si}-\text{Me} \\ \quad \quad \quad | \\ \quad \quad \quad \text{OMe} \end{array}$$
$$\text{Me}-\overset{\text{H}_2\text{C}}{\underset{\parallel}{\text{C}}}-\overset{\text{O}}{\underset{\parallel}{\text{C}}}-\text{O}-(\text{CH}_2)_3-\underset{\text{OMe}}{\overset{\text{OMe}}{\underset{\text{OMe}}{\text{Si}}}}-\text{OMe}$$
$$\text{n-BuO}-\overset{\text{O}}{\parallel}{\text{C}}-\text{CH}=\text{CH}_2$$

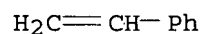
USHA SHRESTHA EIC 1600 REM 1A64

CRN 107-13-1
CMF C3 H3 N



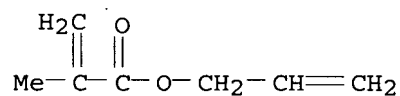
CM 6

CRN 100-42-5
CMF C8 H8



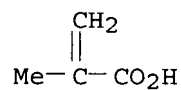
CM 7

CRN 96-05-9
CMF C7 H10 O2



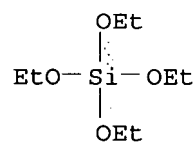
CM 8

CRN 79-41-4
CMF C4 H6 O2



CM 9

CRN 78-10-4
CMF C8 H20 O4 Si



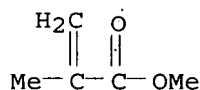
IT 9011-14-7, Poly(methyl methacrylate)
(weather-resistant thermoplastic resin compns. containing acrylic
polysiloxane graft copolymer particles as **impact**
modifiers)
RN 9011-14-7 HCAPLUS

CN 2-Propenoic acid, 2-methyl-, methyl ester, homopolymer (CA INDEX NAME)

CM 1

CRN 80-62-6

CMF C5 H8 O2



IC ICM C08F285-00

ICS C08F291-02; C08L051-00; C08L101-00

CC 37-6 (Plastics Manufacture and Processing)

Section cross-reference(s): 35, 39

ST ethoxysilane octamethylcyclotetrasiloxane acrylic polysiloxane graft copolymer; methacryloyloxypropyltrimethoxysilane acrylic polysiloxane rubber **impact modifier**;

methacryloyloxypropyldimethoxymethylsilane methacrylate weather resistant acrylic polysiloxane; acrylonitrile styrene copolymer acrylic polysiloxane blend

IT Polysiloxanes, uses

(acrylic, graft; weather-resistant thermoplastic resin compns. containing acrylic polysiloxane graft copolymer particles as **impact modifiers**)

IT Acrylic rubber

Silicone rubber, preparation

(allyl methacrylate-Bu acrylate- γ -methacryloyloxypropyldimethoxymethylsilane- γ -methacryloyloxypropyltrimethoxysilane-octamethylcyclotetrasiloxane, graft; weather-resistant thermoplastic resin compns. containing acrylic polysiloxane graft copolymer particles as **impact modifiers**)

IT Acrylic rubber

Silicone rubber, preparation

(allyl methacrylate-Bu acrylate- γ -methacryloyloxypropyldimethoxymethylsilane- γ -methacryloyloxypropyltrimethoxysilane-octamethylcyclotetrasiloxane-tetraethoxysilane, graft; weather-resistant thermoplastic resin compns. containing acrylic polysiloxane graft copolymer particles as **impact modifiers**)

IT Acrylic rubber

Silicone rubber, preparation

(allyl methacrylate-Bu acrylate- γ -methacryloyloxypropyltrimethoxysilane-octamethylcyclotetrasiloxane-tetraethoxysilane, graft; weather-resistant thermoplastic resin compns. containing acrylic polysiloxane graft copolymer particles as **impact modifiers**)

IT **Impact-resistant materials**

(weather-resistant thermoplastic resin compns. containing acrylic polysiloxane graft copolymer particles as **impact modifiers**)

IT Polyesters, uses

Polyoxyphenylenes

(weather-resistant thermoplastic resin compns. containing acrylic polysiloxane graft copolymer particles as **impact modifiers**)

- IT Polyamides, properties
Polycarbonates, properties
(weather-resistant thermoplastic resin compns. containing acrylic polysiloxane graft copolymer particles as **impact modifiers**)
- IT 189073-61-8P, Allyl methacrylate-butyl acrylate- γ -methacryloyloxypropyltrimethoxysilane-octamethylcyclotetrasiloxane-tetraethoxysilane copolymer 189073-70-9P, Allyl methacrylate-butyl acrylate- γ -methacryloyloxypropyldimethoxymethylsilane- γ -methacryloyloxypropyltrimethoxysilane-octamethylcyclotetrasiloxane-tetraethoxysilane copolymer 217300-10-2P, Allyl methacrylate-butyl acrylate- γ -methacryloyloxypropyldimethoxymethylsilane- γ -methacryloyloxypropyltrimethoxysilane-octamethylcyclotetrasiloxane copolymer
(rubber; weather-resistant thermoplastic resin compns. containing acrylic polysiloxane graft copolymer particles as **impact modifiers**)
- IT 189073-72-1P, Allyl methacrylate-butyl acrylate- γ -methacryloyloxypropyldimethoxymethylsilane- γ -methacryloyloxypropyltrimethoxysilane-methyl methacrylate-octamethylcyclotetrasiloxane-tetraethoxysilane graft copolymer 217300-07-7P, Acrylonitrile-allyl methacrylate-butyl acrylate- γ -methacryloyloxypropyldimethoxymethylsilane- γ -methacryloyloxypropyltrimethoxysilane-octamethylcyclotetrasiloxane-styrene-tetraethoxysilane graft copolymer 217300-08-8P, Allyl methacrylate-butyl acrylate- γ -methacryloyloxypropyldimethoxymethylsilane- γ -methacryloyloxypropyltrimethoxysilane-methyl methacrylate-octamethylcyclotetrasiloxane graft copolymer 217300-09-9P, Acrylonitrile-allyl methacrylate-butyl acrylate-methacrylic acid- γ -methacryloyloxypropyldimethoxymethylsilane- γ -methacryloyloxypropyltrimethoxysilane-octamethylcyclotetrasiloxane-styrene-tetraethoxysilane graft copolymer
(weather-resistant thermoplastic resin compns. containing acrylic polysiloxane graft copolymer particles as **impact modifiers**)
- IT 9003-53-6 9011-14-7, Poly(methyl methacrylate) 25034-86-0, Methyl methacrylate-styrene copolymer 31621-07-5, Acrylonitrile-N-phenylmaleimide-styrene copolymer
(weather-resistant thermoplastic resin compns. containing acrylic polysiloxane graft copolymer particles as **impact modifiers**)
- IT 9002-86-2, Poly(vinyl chloride) 9003-54-7, Acrylonitrile-styrene copolymer 24968-12-5 25747-74-4, Acrylonitrile- α -methylstyrene copolymer 26062-94-2, 1,4-Butanediol-terephthalic acid copolymer
(weather-resistant thermoplastic resin compns. containing acrylic polysiloxane graft copolymer particles as **impact modifiers**)

L55 ANSWER 43 OF 49 HCAPLUS COPYRIGHT 2007 ACS on STN

ACCESSION NUMBER: 1998:758217 HCAPLUS

DOCUMENT NUMBER: 130:53090

TITLE: Silicone-modified acrylic rubber particles and graft copolymer particles and thermoplastic resin compositions containing the same with good weather and impact resistance and moldability

INVENTOR(S): Miyatake, Nobuo; Yoshino, Hiroki; Hosoi, Hideki

PATENT ASSIGNEE(S): Kanegafuchi Chemical Industry Co., Ltd., Japan

SOURCE: Jpn. Kokai Tokkyo Koho, 25 pp.
 CODEN: JKXXAF
 DOCUMENT TYPE: Patent
 LANGUAGE: Japanese
 FAMILY ACC. NUM. COUNT: 1
 PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
JP 10310616	A	19981124	JP 1997-121199	19970512

PRIORITY APPLN. INFO.: JP 1997-121199 19970512
 <--

ED Entered STN: 03 Dec 1998

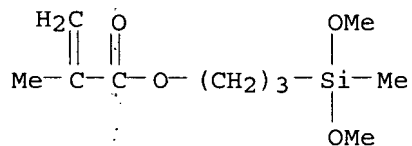
AB The title particles are prepared by grafting and crosslinking, wherein 100 parts acrylic rubber particles obtained by copolymerizing 99.8% C1-12-alkyl acrylate and/or C4-12-alkyl methacrylate, 0.1-5% polyfunctional monomers having ≥ 2 polymerizable unsaturated groups, 0.1-10% monomers having polymerizable unsaturated groups and reactive silyl groups, and 0-20% comonomers are graft polymerized with 45-5000 parts silicone rubber-forming components comprising 80-99.9% low-molecular-weight organosiloxanes, 0.1-10% reactive silanes having polymerizable unsaturated groups, and 0-15% silane comonomers, followed by radical crosslinking of a portion of the silicone rubber component to obtain the title particles with rubber component content $\geq 30\%$. Emulsion-polymerized Bu acrylate-allyl methacrylate- γ -methacryloyloxypropyltrimethoxysilane copolymer was grafted with octamethylcyclotetrasiloxane and γ -methacryloyloxypropyldimethoxymethylsilane then crosslinked in the presence of cumene hydroperoxide.

IT 217300-08-8P, Allyl methacrylate-butyl acrylate- γ -methacryloyloxypropyldimethoxymethylsilane- γ -methacryloyloxypropyltrimethoxysilane-methyl methacrylate-octamethylcyclotetrasiloxane graft copolymer 217467-25-9P, Allyl methacrylate-butyl acrylate- γ -methacryloyloxypropyldimethoxymethylsilane- γ -methacryloyloxypropyltrimethoxysilane-octamethylcyclotetrasiloxane graft copolymer 217467-26-0P, Allyl methacrylate-butyl acrylate- γ -methacryloyloxypropyltrimethoxysilane-octamethylcyclotetrasiloxane graft copolymer 217467-27-1P, Allyl methacrylate-butyl acrylate- γ -methacryloyloxypropyltrimethoxysilane-octamethylcyclotetrasiloxane-p-vinylphenyldimethoxymethylsilane graft copolymer 217467-28-2P, Acrylonitrile-methacrylic acid-styrene-allyl methacrylate-butyl acrylate- γ -methacryloyloxypropyldimethoxymethylsilane- γ -methacryloyloxypropyltrimethoxysilane-octamethylcyclotetrasiloxane graft copolymer 217467-29-3P, Acrylonitrile-styrene-allyl methacrylate-butyl acrylate- γ -methacryloyloxypropyldimethoxymethylsilane- γ -methacryloyloxypropyltrimethoxysilane-octamethylcyclotetrasiloxane graft copolymer (silicone-modified acrylic rubber particles and graft copolymer particles and thermoplastic resin compns. containing the same with good weather and impact resistance and moldability)

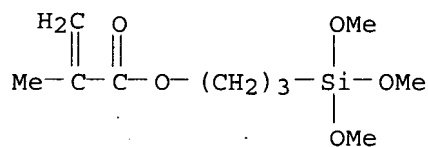
RN 217300-08-8 HCAPLUS

CN 2-Propenoic acid, 2-methyl-, 3-(dimethoxymethylsilyl)propyl ester, polymer with butyl 2-propenoate, methyl 2-methyl-2-propenoate, octamethylcyclotetrasiloxane, 2-propenyl 2-methyl-2-propenoate and 3-(trimethoxysilyl)propyl 2-methyl-2-propenoate, graft (9CI) (CA INDEX NAME)

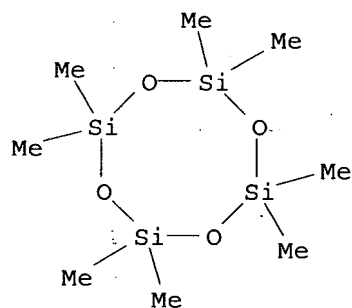
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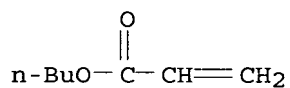
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CRN 556-67-2
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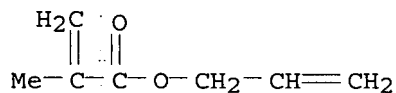
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CM 5

CRN 96-05-9

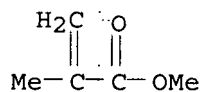
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CM 6

CRN 80-62-6

CMF C5 H8 O2



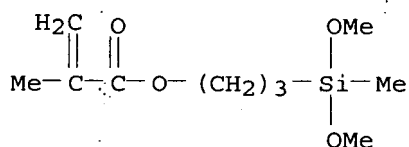
RN 217467-25-9 HCAPLUS

CN 2-Propenoic acid, 2-methyl-, 3-(dimethoxymethylsilyl)propyl ester, polymer with butyl 2-propenoate, octamethylcyclotetrasiloxane, 2-propenyl 2-methyl-2-propenoate and 3-(trimethoxysilyl)propyl 2-methyl-2-propenoate, graft (9CI) (CA INDEX NAME)

CM 1

CRN 14513-34-9

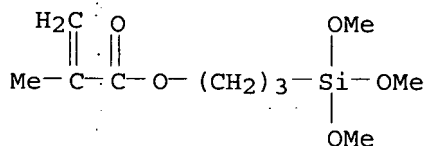
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CRN 2530-85-0

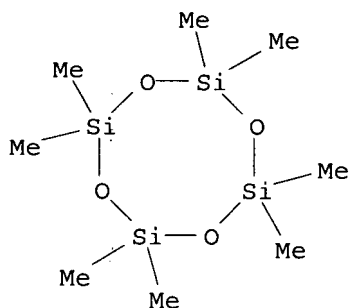
CMF C10 H20 O5 Si



CM 3

CRN 556-67-2

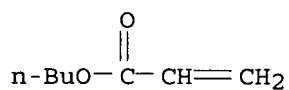
CMF C8 H24 O4 Si4



CM 4

CRN 141-32-2

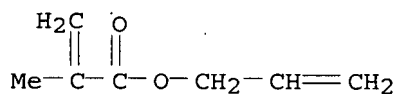
CMF C7 H12 O2



CM 5

CRN 96-05-9

CMF C7 H10 O2



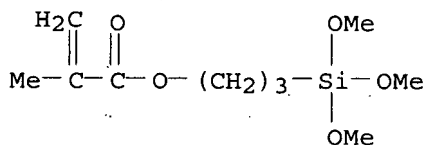
RN 217467-26-0 HCAPLUS

CN 2-Propenoic acid, 2-methyl-, 2-propenyl ester, polymer with butyl 2-propenoate, octamethylcyclotetrasiloxane and 3-(trimethoxysilyl)propyl 2-methyl-2-propenoate, graft (9CI) (CA INDEX NAME)

CM 1

CRN 2530-85-0

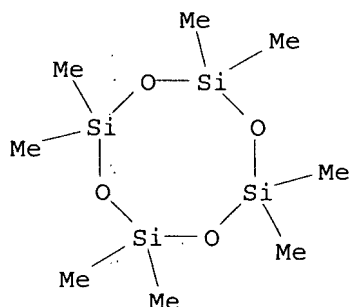
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CM 2

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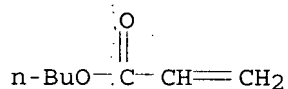
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CM 3

CRN 141-32-2

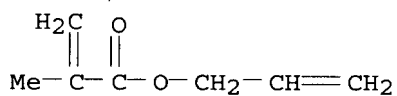
CMF C7 H12 O2



CM 4

CRN 96-05-9

CMF C7 H10 O2



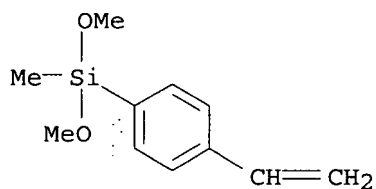
RN 217467-27-1 HCAPLUS

CN 2-Propenoic acid, 2-methyl-, 2-propenyl ester, polymer with butyl 2-propenoate, (4-ethenylphenyl)dimethoxymethylsilane, octamethylcyclotetrasiloxane and 3-(trimethoxysilyl)propyl 2-methyl-2-propenoate, graft (9CI) (CA INDEX NAME)

CM 1

CRN 17998-86-6

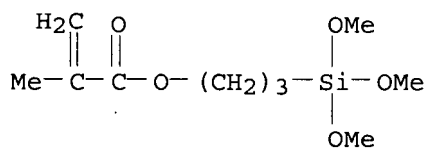
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CM 2

CRN 2530-85-0

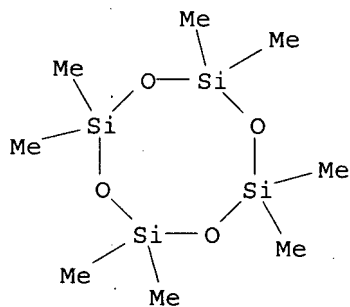
CMF C10 H20 O5 Si



CM 3

CRN 556-67-2

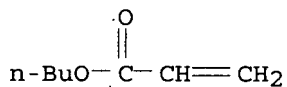
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CM 4

CRN 141-32-2

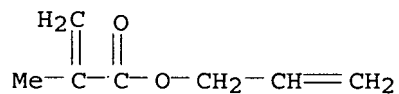
CMF C7 H12 O2



CM 5

CRN 96-05-9

CMF C7 H10 O2



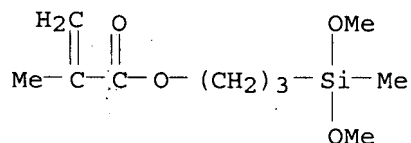
RN 217467-28-2 HCAPLUS

CN 2-Propenoic acid, 2-methyl-, polymer with butyl 2-propenoate,
 3-(dimethoxymethylsilyl)propyl 2-methyl-2-propenoate, ethenylbenzene,
 octamethylcyclotetrasiloxane, 2-propenenitrile, 2-propenyl
 2-methyl-2-propenoate and 3-(trimethoxysilyl)propyl
 2-methyl-2-propenoate, graft (9CI) (CA INDEX NAME)

CM 1

CRN 14513-34-9

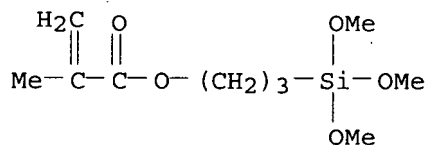
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CM 2

CRN 2530-85-0

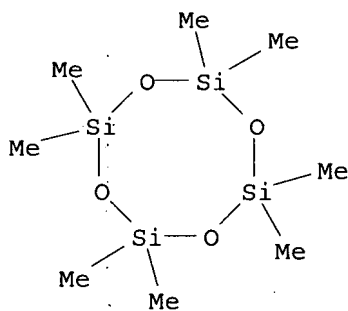
CMF C10 H20 O5 Si



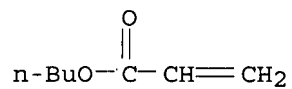
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CRN 556-67-2

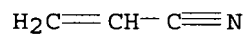
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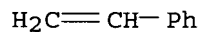
CM 4
 CRN 141-32-2
 CMF C7 H12 O2



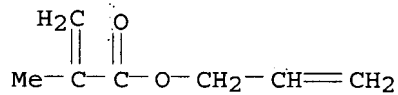
CM 5
 CRN 107-13-1
 CMF C3 H3 N



CM 6
 CRN 100-42-5
 CMF C8 H8

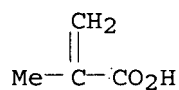


CM 7
 CRN 96-05-9
 CMF C7 H10 O2



CM 8

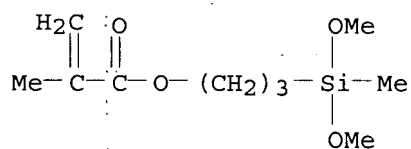
CRN 79-41-4
CMF C4 H6 O2



RN 217467-29-3 HCAPLUS
CN 2-Propenoic acid, 2-methyl-, 3-(dimethoxymethylsilyl)propyl ester, polymer with butyl 2-propenoate, ethenylbenzene, octamethylcyclotetrasiloxane, 2-propenenitrile, 2-propenyl 2-methyl-2-propenoate and 3-(trimethoxysilyl)propyl 2-methyl-2-propenoate, graft (9CI) (CA INDEX NAME)

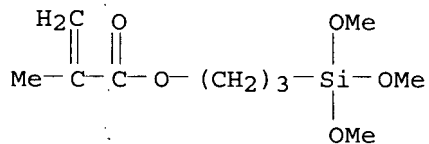
CM 1

CRN 14513-34-9
CMF C10 H20 O4 Si



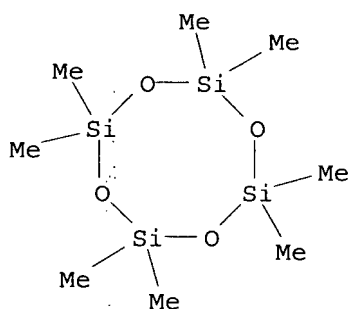
CM 2

CRN 2530-85-0
CMF C10 H20 O5 Si



CM 3

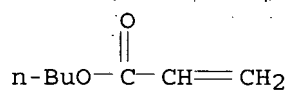
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CMF C8 H24 O4 Si4



CM 4

CRN 141-32-2

CMF C7 H12 O2



CM 5

CRN 107-13-1

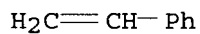
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CM 6

CRN 100-42-5

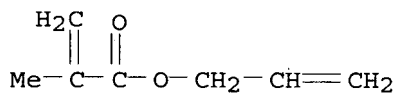
CMF C8 H8



CM 7

CRN 96-05-9

CMF C7 H10 O2



IT 9011-14-7, PMMA

(silicone-modified acrylic rubber particles and graft copolymer

particles and thermoplastic resin compns. containing the same with good weather and impact resistance and moldability)

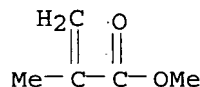
RN 9011-14-7 HCAPLUS

CN 2-Propenoic acid, 2-methyl-, methyl ester, homopolymer (CA INDEX NAME)

CM 1

CRN 80-62-6

CMF C5 H8 O2



IC ICM C08F291-00

ICS C08L051-00; C08L083-04; C08L101-00

CC 37-6 (Plastics Manufacture and Processing)

IT **Impact-resistant materials**

(silicone-modified acrylic rubber particles and graft copolymer particles and thermoplastic resin compns. containing the same with good weather and impact resistance and moldability)

IT **217300-08-8P**, Allyl methacrylate-butyl acrylate- γ -methacryloyloxypropyldimethoxymethylsilane- γ -methacryloyloxypropyltrimethoxysilane-methyl methacrylate-octamethylcyclotetrasiloxane graft copolymer **217467-25-9P**, Allyl methacrylate-butyl acrylate- γ -methacryloyloxypropyldimethoxymethylsilane- γ -methacryloyloxypropyltrimethoxysilane-octamethylcyclotetrasiloxane graft copolymer **217467-26-0P**, Allyl methacrylate-butyl acrylate- γ -methacryloyloxypropyltrimethoxysilane-octamethylcyclotetrasiloxane graft copolymer **217467-27-1P**, Allyl methacrylate-butyl acrylate- γ -methacryloyloxypropyltrimethoxysilane-octamethylcyclotetrasiloxane-p-vinylphenyldimethoxymethylsilane graft copolymer **217467-28-2P**, Acrylonitrile-methacrylic acid-styrene-allyl methacrylate-butyl acrylate- γ -methacryloyloxypropyldimethoxymethylsilane- γ -methacryloyloxypropyltrimethoxysilane-octamethylcyclotetrasiloxane graft copolymer **217467-29-3P**, Acrylonitrile-styrene-allyl methacrylate-butyl acrylate- γ -methacryloyloxypropyldimethoxymethylsilane- γ -methacryloyloxypropyltrimethoxysilane-octamethylcyclotetrasiloxane graft copolymer (silicone-modified acrylic rubber particles and graft copolymer particles and thermoplastic resin compns. containing the same with good weather and impact resistance and moldability)

IT 9002-86-2, PVC 9003-53-6 9003-54-7, Acrylonitrile-styrene copolymer **9011-14-7**, PMMA 24968-12-5 25034-86-0, Methyl methacrylate-styrene copolymer 25747-74-4, Acrylonitrile- α -methylstyrene copolymer 26062-94-2, Butanediol-terephthalic acid copolymer 31621-07-5, Acrylonitrile-N-phenylmaleimide-styrene copolymer (silicone-modified acrylic rubber particles and graft copolymer particles and thermoplastic resin compns. containing the same with good weather and impact resistance and moldability)

L55 ANSWER 44 OF 49 HCAPLUS COPYRIGHT 2007 ACS on STN

ACCESSION NUMBER: 1998:498683 HCAPLUS

DOCUMENT NUMBER: 129:176466

TITLE: Fireproofing agents containing ammonium polyphosphates and thermoplastic resin compositions therewith

INVENTOR(S): Narita, Noriaki; Watanabe, Masami; Takebayashi, Takashi

PATENT ASSIGNEE(S): Chisso Corp., Japan

SOURCE: Jpn. Kokai Tokkyo Koho, 14 pp.
CODEN: JKXXAF

DOCUMENT TYPE: Patent

LANGUAGE: Japanese

FAMILY ACC. NUM. COUNT: 1

PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
JP 10204212	A	19980804	JP 1997-17826	19970116
			<--	
JP 11001574	A	19990106	JP 1997-347211	19971202
			<--	
			JP 1997-17826	A 19970116
			<--	

ED Entered STN: 11 Aug 1998

AB The fireproofing agents comprise (A) 100 parts ammonium polyphosphates, (B) 10-60 parts N-containing organic compds., (C) 0.05-20 parts polysiloxanes, and optionally (D) 1-20 parts ≥ 1 compds. selected from (D1) inorg. metal compds., (D2) sulfate salts or sulfamate salts, (D3) expandable graphite, (D4) red P, and (D5) phosphate esters. The thermoplastic resin compns. contains 10-50% of the above fireproofing agents. Thus, 25% of a fireproofing agent (containing Terraju C 60 100, 2-piperazinylene-4-morpholino-1,3,5-triazine homopolymer 33.3, and DC 4-7081 5.7 parts) and 75% Polypro K 1008 were blended, kneaded, pelletized, and injection-molded to give a test piece showing high impact strength and good fireproofing characteristics.

IC ICM C08K013-02

ICS C08K003-02; C08K003-04; C08K005-521; C08L101-00; C08L083-04

CC 37-6 (Plastics Manufacture and Processing)

IT **Silsesquioxanes**

(Dow Corning 4-7105; fireproofing agents containing ammonium polyphosphates for thermoplastic resins having high impact strength)

IT **Silsesquioxanes**

(Me; fireproofing agents containing ammonium polyphosphates for thermoplastic resins having high impact strength)

IT **Silsesquioxanes**

(epoxy-containing, Dow Corning 4-7051; fireproofing agents containing ammonium polyphosphates for thermoplastic resins having high impact strength)

IT Fireproofing agents

Impact-resistant materials

(fireproofing agents containing ammonium polyphosphates for thermoplastic resins having high impact strength)

IT **Silsesquioxanes**

(methacrylate-, Dow Corning 4-7081; fireproofing agents containing ammonium polyphosphates for thermoplastic resins having high impact strength)

L55 ANSWER 45 OF 49 HCAPLUS COPYRIGHT 2007 ACS on STN

ACCESSION NUMBER: 1997:315039 HCAPLUS

DOCUMENT NUMBER: 126:294225

TITLE: Particulate silicone-modified acrylic rubber, particulate graft copolymer based on silicone-modified acrylic rubber, and thermoplastic resin composition

INVENTOR(S): Miyatake, Nobuo; Yoshino, Hiroki; Hosoi, Hideki

PATENT ASSIGNEE(S): Kaneka Corporation, Japan; Miyatake, Nobuo; Yoshino, Hiroki; Hosoi, Hideki

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CODEN: PIXXD2

DOCUMENT TYPE: Patent

LANGUAGE: Japanese

FAMILY ACC. NUM. COUNT: 1

PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 9710283	A1	19970320	WO 1996-JP2566	19960909

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W: JP, US

RW: AT, BE, CH, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE

EP 791617	A1	19970827	EP 1996-929569	19960909
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EP 791617 B1 20020821

R: AT, BE, CH, DE, DK, ES, FI, FR, GB, GR, IE, IT, LI, LU, MC, NL, PT, SE

AT 222591	T	20020915	AT 1996-929569	19960909
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US 5804655	A	19980908	US 1997-836324	19970507
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PRIORITY APPLN. INFO.:	JP 1995-234108	A	19950912
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JP 1996-128713	A	19960523
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WO 1996-JP2566	W	19960909
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ED Entered STN: 16 May 1997

AB The title rubber is prepared by grafting (B) 45-5000 parts of a silicone rubber forming component comprising 99.9-80% of a low-mol. organosiloxane, 0.1-10% of a multifunctional silane compound and 0-10% of a reactive silane compound having a polymerizable unsatd. bond or a mercapto group in the mol. onto (A) 100 parts of a particulate acrylic rubber and, if necessary, grafting (C) 0.1-5000 parts an acrylic rubber forming component onto the obtained graft polymer without specific equipment at a high conversion. The rubber can improve weather and impact resistance of various thermoplastic resins.

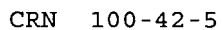
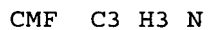
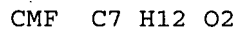
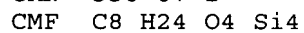
IT 185505-20-8P, Acrylonitrile-allyl methacrylate-butyl acrylate- γ -methacryloyloxypropyltrimethoxysilane-octamethylcyclotetrasiloxane-styrene-tetraethoxysilane graft copolymer
189073-61-8P 189073-63-0P 189073-65-2P
189073-67-4P 189073-69-6P 189073-70-9P
189073-72-1P 189073-73-2P 189073-74-3P

(particulate silicone-modified acrylic rubbers for thermoplastics for improved weather and impact resistance)

RN 185505-20-8 HCAPLUS

CN 2-Propenoic acid, 2-methyl-, 2-propenyl ester, polymer with butyl 2-propenoate, ethenylbenzene, octamethylcyclotetrasiloxane, 2-propenenitrile, silicic acid (H₄SiO₄) tetraethyl ester and 3-(trimethoxysilyl)propyl 2-methyl-2-propenoate, graft (9CI) (CA INDEX NAME)

CMF C10 H20 O5 Si



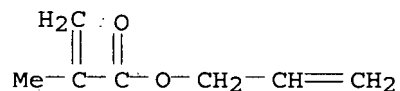
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CM 6

CRN 96-05-9

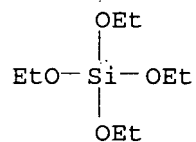
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CM 7

CRN 78-10-4

CMF C8 H20 O4 Si



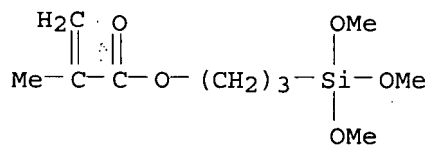
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CN 2-Propenoic acid, 2-methyl-, 2-propenyl ester, polymer with butyl
2-propenoate, octamethylcyclotetrasiloxane, silicic acid (H₄SiO₄)
tetraethyl ester and 3-(trimethoxysilyl)propyl 2-methyl-2-propenoate
(9CI) (CA INDEX NAME)

CM 1

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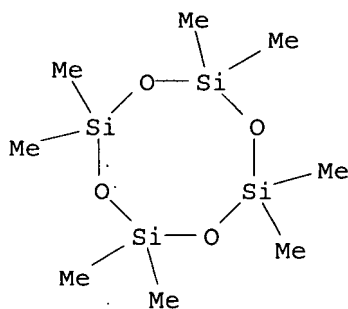
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CM 2

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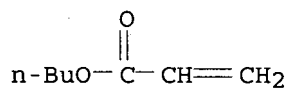
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CM 3

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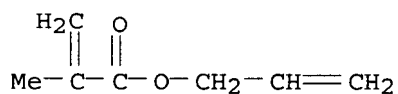
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CM 4

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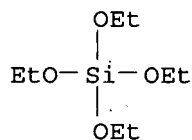
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CM 5

CRN 78-10-4

CMF C8 H20 O4 Si



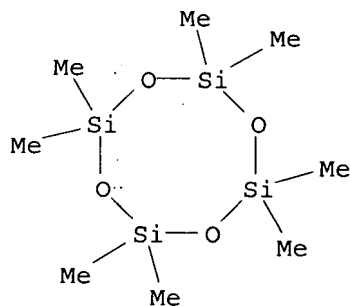
RN 189073-63-0 HCAPLUS

CN 2-Propenoic acid, 2-methyl-, methyl ester, polymer with butyl
 2-propenoate, octamethylcyclotetrasiloxane, 2-propenyl
 2-methyl-2-propenoate, silicic acid (H4SiO4) tetraethyl ester and
 3-(trimethoxysilyl)propyl 2-methyl-2-propenoate (9CI) (CA INDEX NAME)

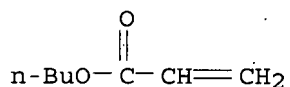
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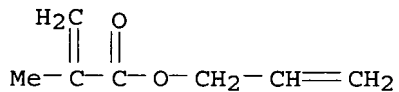
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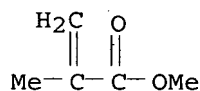
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CRN 96-05-9
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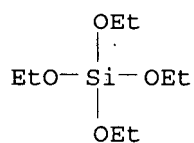
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CMF C5 H8 O2



CM 6

CRN 78-10-4

CMF C8 H20 O4 Si



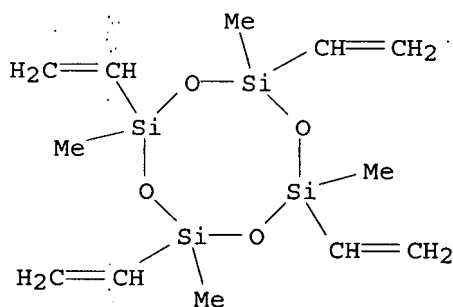
RN 189073-65-2 HCAPLUS

CN 2-Propenoic acid, 2-methyl-, 2-propenyl ester, polymer with butyl 2-propenoate, octamethylcyclotetrasiloxane, silicic acid (H₄SiO₄) tetraethyl ester, 2,4,6,8-tetraethenyl-2,4,6,8-tetramethylcyclotetrasiloxane and 3-(trimethoxysilyl)propyl 2-methyl-2-propenoate (9CI) (CA INDEX NAME)

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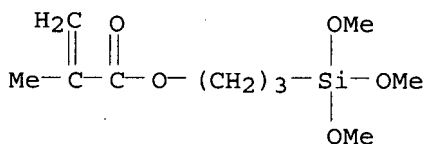
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CRN 2530-85-0

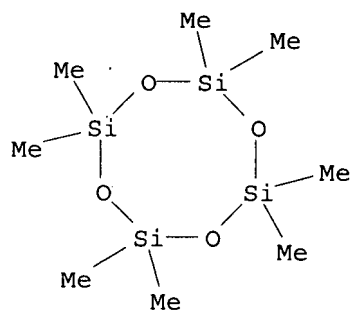
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CM 3

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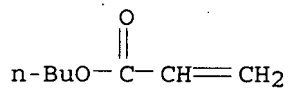
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CM 4

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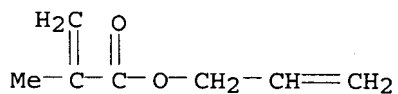
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CM 5

CRN 96-05-9

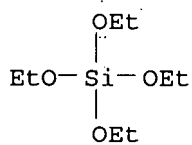
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CM 6

CRN 78-10-4

CMF C8 H20 O4 Si



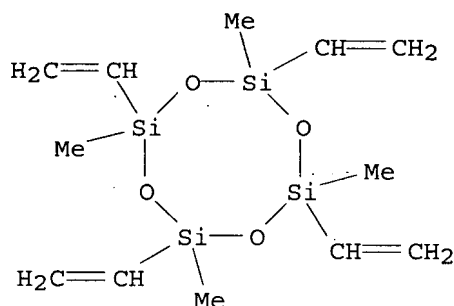
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CN 2-Propenoic acid, 2-methyl-, methyl ester, polymer with butyl 2-propenoate, octamethylcyclotetrasiloxane, 2-propenyl 2-methyl-2-propenoate, silicic acid (H₄SiO₄) tetraethyl ester, 2,4,6,8-tetraethenyl-2,4,6,8-tetramethylcyclotetrasiloxane and 3-(trimethoxysilyl)propyl 2-methyl-2-propenoate, graft (9CI) (CA INDEX NAME)

CM 1

CRN 2554-06-5

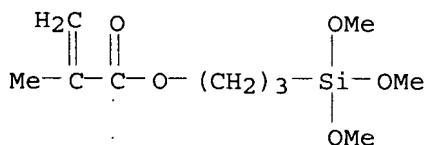
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CM 2

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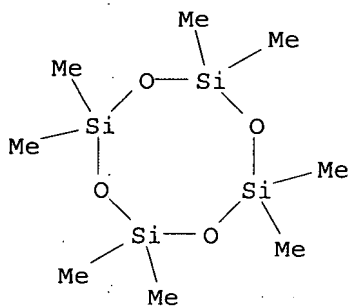
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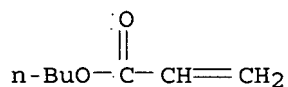
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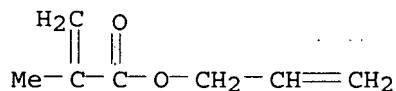
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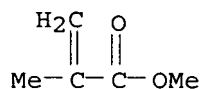
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CRN 141-32-2
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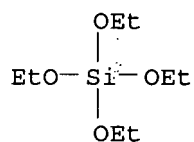
CM 5

CRN 96-05-9
CMF C7 H10 O2

CM 6

CRN 80-62-6
CMF C5 H8 O2

CM 7

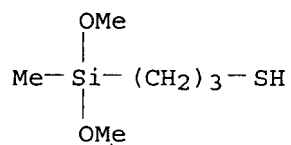
CRN 78-10-4
CMF C8 H20 O4 Si

RN 189073-69-6 HCAPLUS
 CN 2-Propenoic acid, 2-methyl-, 2-propenyl ester, polymer with butyl
 2-propenoate, 3-(dimethoxymethylsilyl)-1-propanethiol,
 octamethylcyclotetrasiloxane, silicic acid (H₄SiO₄) tetraethyl ester
 and 3-(trimethoxysilyl)propyl 2-methyl-2-propenoate (9CI) (CA INDEX
 NAME)

CM 1

CRN 31001-77-1

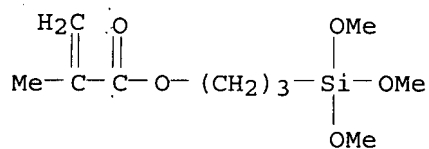
CMF C6 H16 O2 S Si



CM 2

CRN 2530-85-0

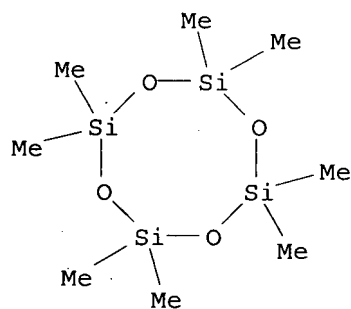
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CM 3

CRN 556-67-2

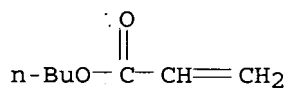
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CM 4

CRN 141-32-2

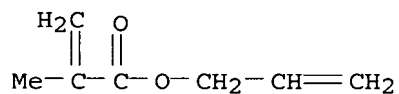
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CM 5

CRN 96-05-9

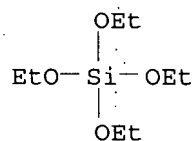
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CM 6

CRN 78-10-4

CMF C8 H20 O4 Si



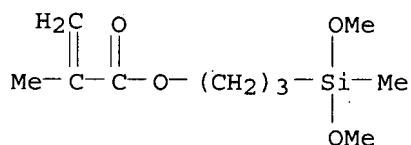
RN 189073-70-9 HCAPLUS

CN 2-Propenoic acid, 2-methyl-, 3-(dimethoxymethylsilyl)propyl ester, polymer with butyl 2-propenoate, octamethylcyclotetrasiloxane, 2-propenyl 2-methyl-2-propenoate, silicic acid (H₄SiO₄) tetraethyl ester and 3-(trimethoxysilyl)propyl 2-methyl-2-propenoate (9CI) (CA INDEX NAME)

CM 1

CRN 14513-34-9

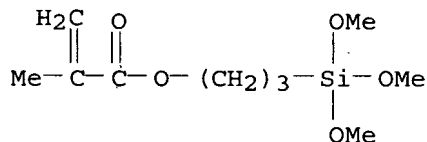
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CM 2

CRN 2530-85-0

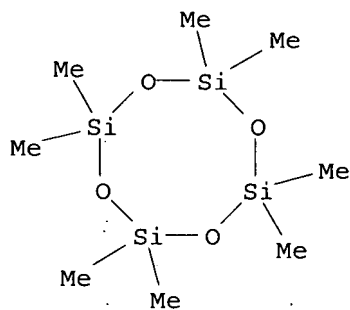
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CRN 556-67-2

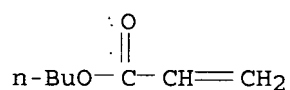
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CM 4

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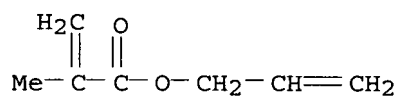
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CM 5

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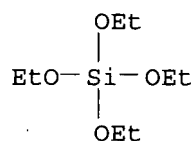
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CM 6

CRN 78-10-4

CMF C8 H20 O4 Si



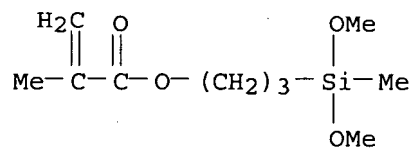
RN 189073-72-1 HCAPLUS

CN 2-Propenoic acid, 2-methyl-, 3-(dimethoxymethylsilyl)propyl ester,
 polymer with butyl 2-propenoate, methyl 2-methyl-2-propenoate,
 octamethylcyclotetrasiloxane, 2-propenyl 2-methyl-2-propenoate,
 silicic acid (H4SiO4) tetraethyl ester and 3-(trimethoxysilyl)propyl
 2-methyl-2-propenoate, graft (9CI) (CA INDEX NAME)

CM 1

CRN 14513-34-9

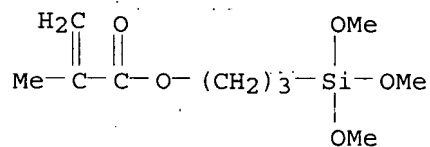
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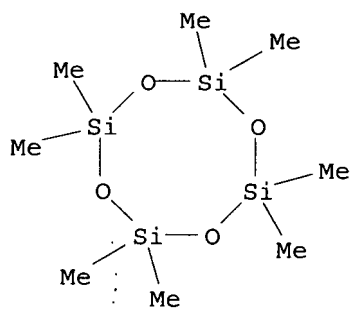
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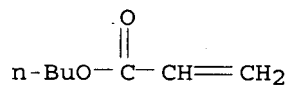
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CM 4

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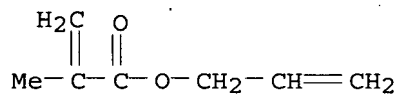
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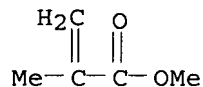
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CM 6

CRN 80-62-6

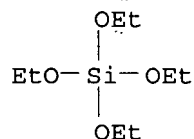
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CM 7

CRN 78-10-4

CMF C8 H20 O4 Si



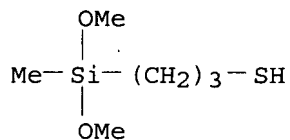
RN 189073-73-2 HCAPLUS

CN 2-Propenoic acid, 2-methyl-, methyl ester, polymer with butyl 2-propenoate, 3-(dimethoxymethylsilyl)-1-propanethiol, octamethylcyclotetrasiloxane, 2-propenyl 2-methyl-2-propenoate, silicic acid (H4SiO4) tetraethyl ester and 3-(trimethoxysilyl)propyl 2-methyl-2-propenoate (9CI) (CA INDEX NAME)

CM 1

CRN 31001-77-1

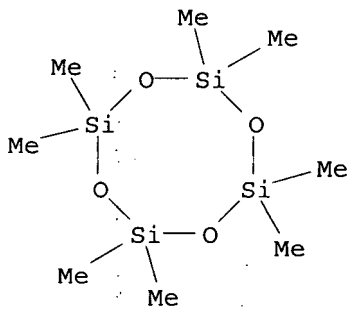
CMF C6 H16 O2 S Si



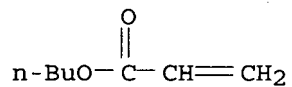
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$$\text{Me}-\overset{\text{H}_2\text{C}}{\underset{\parallel}{\text{C}}}-\overset{\text{O}}{\underset{\parallel}{\text{C}}}-\text{O}-(\text{CH}_2)_3-\underset{\text{OMe}}{\overset{\text{OMe}}{\underset{\text{OMe}}{\text{Si}}}}-\text{OMe}$$

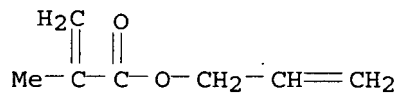
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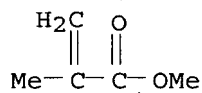


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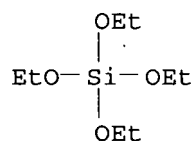
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CM 7.

CRN 78-10-4

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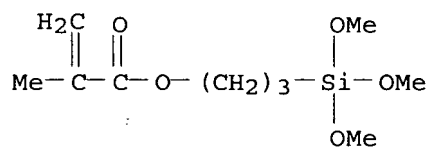
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(CA INDEX NAME)

CM 1

CRN 2530-85-0

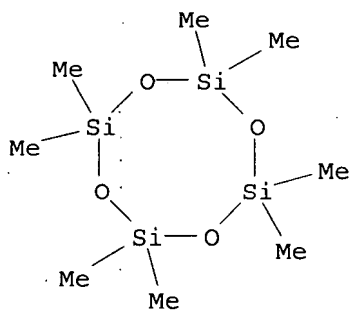
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CM 2

CRN 556-67-2

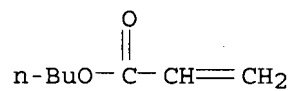
CMF C8 H24 O4 Si4



CM 3

CRN 141-32-2

CMF C7 H12 O2



CM 4

CRN 107-13-1

CMF C3 H3 N



CM 5

CRN 100-42-5

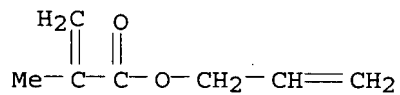
CMF C8 H8



CM 6

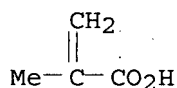
CRN 96-05-9

CMF C7 H10 O2



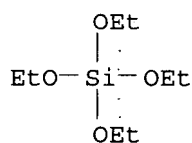
CM 7

CRN 79-41-4
CMF C4 H6 O2



CM 8

CRN 78-10-4
CMF C8 H20 O4 Si



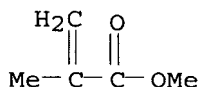
IT 9011-14-7, PMMA
(particulate silicone-modified acrylic rubbers for thermoplastics
for improved weather and impact resistance)

RN 9011-14-7 HCAPLUS

CN 2-Propenoic acid, 2-methyl-, methyl ester, homopolymer (CA INDEX
NAME)

CM 1

CRN 80-62-6
CMF C5 H8 O2



IC ICM C08G077-42

ICS C08L033-06; C08L083-10

CC 37-6 (Plastics Manufacture and Processing)

Section cross-reference(s): 39

ST PVC **impact modifier** acrylic silicone rubber;
methyl methacrylate grafted acrylic silicone rubber; styrene
acrylonitrile grafted acrylic silicone rubber; polyamide molding
impact weather resistance

IT **Polymerization**

(graft; particulate silicone-modified acrylic rubbers for
thermoplastics for improved weather and impact resistance)

IT 25747-74-4P, Acrylonitrile- α -methylstyrene copolymer

185505-20-8P, Acrylonitrile-allyl methacrylate-butyl

acrylate- γ -methacryloyloxypropyltrimethoxysilane-

octamethylcyclotetrasiloxane-styrene-tetraethoxysilane graft copolymer

189073-61-8P 189073-63-0P 189073-65-2P

189073-67-4P 189073-69-6P 189073-70-9P

189073-72-1P 189073-73-2P 189073-74-3P

(particulate silicone-modified acrylic rubbers for thermoplastics
for improved weather and impact resistance)

IT 9003-53-6, Polystyrene 9003-54-7, Acrylonitrile-styrene copolymer
9011-14-7, PMMA 25034-86-0, Methyl methacrylate-styrene
copolymer 31621-07-5, Acrylonitrile-N-phenylmaleimide-styrene
copolymer

(particulate silicone-modified acrylic rubbers for thermoplastics
for improved weather and impact resistance)

L55 ANSWER 46 OF 49 HCAPLUS COPYRIGHT 2007 ACS on STN

ACCESSION NUMBER: 1995:661097 HCAPLUS

DOCUMENT NUMBER: 123:231522

TITLE: Thermosetting compositions, thermal latent acid
catalysts, methods of coating and coated articles
with good physicochem. properties, weather
resistance and storage stability

INVENTOR(S): Ishidoya, Masahiro; Shibato, Kishio; Komoto,
Keiji; Shibamoto, Kenji; Mashita, Mitsuyuki; Ohe,
Osamu

PATENT ASSIGNEE(S): Nippon Oil and Fats Co., Ltd., Japan

SOURCE: U.S., 32 pp. Cont.-in-part of U.S. 5,352,740.

CODEN: USXXAM

DOCUMENT TYPE: Patent

LANGUAGE: English

FAMILY ACC. NUM. COUNT: 3

PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
US 5419929	A	19950530	US 1992-948017	19920921
			<--	
JP 04218561	A	19920810	JP 1991-89510	19910328
			<--	
US 5352740	A	19941004	US 1991-680356	19910404
			<--	
CA 2040167	A1	19911011	CA 1991-2040167	19910410
			<--	
CA 2040167	C	19971216		
JP 05320529	A	19931203	JP 1992-255847	19920831
			<--	
JP 2746005	B2	19980428		
US 5516839	A	19960514	US 1994-260002	19940615
			<--	
US 5549932	A	19960827	US 1995-401198	19950309
			<--	
US 5660937	A	19970826	US 1995-401368	19950309
			<--	
US 5521011	A	19960528	US 1995-444160	19950518
			<--	
US 5578677	A	19961126	US 1995-578083	19951227
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PRIORITY APPLN. INFO.:			JP 1990-94267	A 19900410
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			JP 1990-259695	A 19900928
			<--	
			JP 1990-288776	A 19901026
			<--	
			JP 1991-89510	A 19910328
			<--	
			US 1991-680356	A2 19910404

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 JP 1991-283514 A 19911003
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 JP 1991-283515 A 19911003
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 JP 1991-287129 A 19911007
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 JP 1991-287130 A 19911007
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 JP 1992-91985 A 19920318
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 JP 1992-92240 A 19920318
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 JP 1992-97055 A 19920324
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 JP 1992-97057 A 19920324
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 JP 1992-255847 A 19920831
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 US 1992-948017 A3 19920921
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 US 1994-260002 A3 19940615
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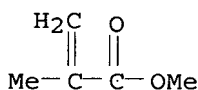
ED Entered STN: 08 Jul 1995

AB Thermosetting composition comprises a compound having ≥ 2 carboxyl groups blocked by a vinyl (thio)ether or a heterocyclic compound having a vinyl type double bond and O or S as the hetero atom, a compound having ≥ 2 reactive groups which can form a chemical bond with the blocked carboxyl compound by heating, a specific vinyl (thio)ether, and optionally a thermal latent acid catalyst. The blocked carboxyl group of the first compound and the reactive functional group of the second compound may be in the same mol. A component compound was prepared by polymerization of methacrylic acid-Et vinyl ether reaction product (acid value < 30) 167.2, Bu methacrylate 100, Me methacrylate 178.6, and 2-ethylhexyl acrylate 135.4 parts. A coating composition curable in 30 min at 120° comprised the above component compound 100, Denacol EX-421 15.5, titania 52.4, Moadaflow 0.3, xylene 7, BuOAc 2, and Pr vinyl ether 3.6 parts.

IT 80-62-6DP, Methyl methacrylate, acrylic copolymers with methacrylic acid-vinyl ether reaction products and other comonomers 106-91-2DP, Glycidyl methacrylate, acrylic copolymers with methacrylic acid-vinyl ether reaction products and other comonomers 139957-63-4P, Butyl methacrylate-2-ethylhexyl acrylate-3-methacryloyloxypropyltrimethoxysilane-methyl methacrylate copolymer (thermosetting compns., thermal latent acid catalysts, methods of coating and coated articles with good physicochemical properties, weather resistance and storage stability)

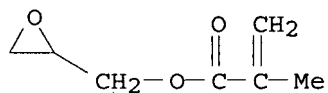
RN 80-62-6 HCAPLUS

CN 2-Propenoic acid, 2-methyl-, methyl ester (CA INDEX NAME)



RN 106-91-2 HCAPLUS

CN 2-Propenoic acid, 2-methyl-, 2-oxiranylmethyl ester (CA INDEX NAME)



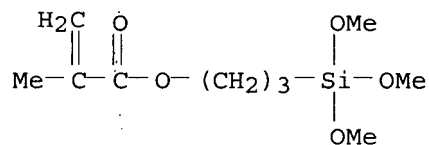
RN 139957-63-4 HCAPLUS

CN 2-Propenoic acid, 2-methyl-, butyl ester, polymer with 2-ethylhexyl 2-propenoate, methyl 2-methyl-2-propenoate and 3-(trimethoxysilyl)propyl 2-methyl-2-propenoate (9CI) (CA INDEX NAME)

CM 1

CRN 2530-85-0

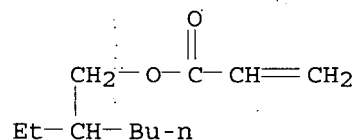
CMF C10 H20 O5 Si



CM 2

CRN 103-11-7

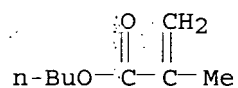
CMF C11 H20 O2



CM 3

CRN 97-88-1

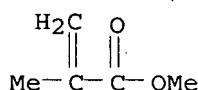
CMF C8 H14 O2



CM 4

CRN 80-62-6

CMF C5 H8 O2



IC ICM C08L029-00
ICS C08L033-00; C08L037-00; C08L067-02
INCL 427386000
CC 42-10 (Coatings, Inks, and Related Products)
IT Coating materials

Impact-resistant materials

(thermosetting compns., thermal latent acid catalysts, methods of coating and coated articles with good physicochem. properties, weather resistance and storage stability)

IT 79-41-4DP, Methacrylic acid, reaction products with vinyl ethers, acrylic polymers **80-62-6DP**, Methyl methacrylate, acrylic copolymers with methacrylic acid-vinyl ether reaction products and other comonomers 97-88-1DP, Butyl methacrylate, acrylic copolymers with methacrylic acid-vinyl ether reaction products and other comonomers 103-11-7DP, 2-Ethylhexyl acrylate, acrylic copolymers with methacrylic acid-vinyl ether reaction products and other comonomers **106-91-2DP**, Glycidyl methacrylate, acrylic copolymers with methacrylic acid-vinyl ether reaction products and other comonomers 109-53-5DP, Isobutyl vinyl ether, reaction products with methacrylic acid, acrylic polymers 109-92-2DP, Ethyl vinyl ether, reaction products with methacrylic acid, acrylic polymers 110-87-2DP, 3,4-Dihydro-2H-pyran, reaction products with methacrylic acid, acrylic polymers 868-77-9DP, 2-Hydroxyethyl methacrylate, acrylic copolymers with methacrylic acid-vinyl ether reaction products and other comonomers 2530-85-0DP, 3-Methacryloyloxypropyltrimethoxysilane, acrylic copolymers with methacrylic acid-vinyl ether reaction products and other comonomers 62695-06-1P, Butyl methacrylate-2-ethylhexyl acrylate-glycidyl methacrylate-methyl methacrylate copolymer **139957-63-4P**, Butyl methacrylate-2-ethylhexyl acrylate-3-methacryloyloxypropyltrimethoxysilane-methyl methacrylate copolymer
(thermosetting compns., thermal latent acid catalysts, methods of coating and coated articles with good physicochem. properties, weather resistance and storage stability)

L55 ANSWER 47 OF 49 HCAPLUS COPYRIGHT 2007 ACS on STN

ACCESSION NUMBER: 1993:604738 HCAPLUS

DOCUMENT NUMBER: 119:204738

TITLE: Synthetic resin-silicone compositions with moisture-barrier properties and their uses

INVENTOR(S): Kimura, Hiroshi; Horie, Yutaka; Yonekura, Kazuya

PATENT ASSIGNEE(S): Toshiba Silicone, Japan

SOURCE: Jpn. Kokai Tokkyo Koho, 13 pp.

CODEN: JKXXAF

DOCUMENT TYPE: Patent

LANGUAGE: Japanese

FAMILY ACC. NUM. COUNT: 1

PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
JP 05086295	A	19930406	JP 1992-66551	19920325
JP 3048738	B2	20000605		

PRIORITY APPLN. INFO.:

JP 1991-144738

A1 19910617

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ED Entered STN: 13 Nov 1993

AB The title compns., useful for films, glossy coatings, and abrasion- and impact-resistant glossy moldings, comprise 100 parts synthetic resins and 0.01-100 parts organic solvent-soluble silicones with softening point $\geq 50^\circ$ containing $\text{RSiO}_{1.5}$ 30-99, R_2SiO 0-80, $\text{R}_3\text{SiO}_{0.5}$ 1-70, and SiO_2 0-50 mol % or 50-99 mol % $\text{RSiO}_{1.5}$ and 1-55 mol % $\text{R}_3\text{SiO}_{0.5}$ [R = (substituted) monovalent hydrocarbyl]. The silicones are prepared by treating 100 parts silanol-containing siloxanes $\text{R}_1\text{aSi}(\text{OH})\text{bO}[(4-\text{a}-\text{b})/2]$ [R_1 = (substituted) monovalent hydrocarbyl; $0.2 \leq \text{a} \leq 2.0$; $0.001 \leq \text{b} \leq 2$; $(\text{a} + \text{b}) \leq 4$] with 5-100 parts $(\text{R}_2\text{R}_3\text{Si})\text{cZ}$ [R_2 = (substituted) monovalent hydrocarbyl; $\text{c} = 1, 2$; $\text{Z} = \text{H}, \text{OH}$, hydrolyzable group when $\text{c} = 1$; $\text{Z} = \text{O}, \text{NX}, \text{S}$ when $\text{c} = 2$; $\text{X} = \text{H}, \text{C}_{1-4}$ hydrocarbyl, $\text{R}_2\text{R}_3\text{Si}$]. Thus, a mixture of (iso-PrO) $_3\text{SiMe}$ 0.25, PhSiCl_3 0.5, and Ph_2SiCl_2 0.25 mol was hydrolyzed to give a silsesquioxane (mol. weight 13,000; containing 2.8% silanol) which was treated with Me_3SiCl and hexamethyldisilazane for trimethylsilylation of the silanol groups and milled to give a siloxane-silsesquioxane with softening point 120° , average particle size 5 μm , and silanol content 0.4%. A blend of the siloxane-silsesquioxane 20, PET 100, and Tospearl 105 0.5 part was extruded at 300° to give an unstretched approx. 150- μm film showing moisture permeation (JIS Z 0208) 0.5 g/m 2 .24 h at 25° and 90% relative humidity, vs. 4.1 without the siloxane-silsesquioxane.

IC ICM C08L101-00

ICS C08J005-00; C08J005-18; C08L083-04; C09D201-00

ICI C08L101-00

CC 37-6 (Plastics Manufacture and Processing)

Section cross-reference(s): 38, 42

IT Siloxanes and Silicones, uses

Silsesquioxanes

(blends with thermoplastics, moisture-barrier, abrasion-resistant)

IT Abrasion-resistant materials

Impact-resistant materials

(synthetic resin-siloxane blends, moisture-barrier)

IT 9003-07-0 9003-53-6, Polystyrene 9011-14-7, Poly(methyl methacrylate) 25038-59-9, Poly(ethylene terephthalate), uses 150825-16-4, Acrylic A 80-45

(blends with siloxanes, moisture-barrier)

L55 ANSWER 48 OF 49 HCAPLUS COPYRIGHT 2007 ACS on STN

ACCESSION NUMBER: 1993:604646 HCAPLUS

DOCUMENT NUMBER: 119:204646

TITLE: Transparent composites and their preparation

INVENTOR(S): Yamamoto, Naoki; Nakata, Akira; Hatakeyama, Hiroki; Watanabe, Hiroyuki

PATENT ASSIGNEE(S): Mitsubishi Rayon Co., Ltd., Japan

SOURCE: Eur. Pat. Appl., 21 pp.

CODEN: EPXXDW

DOCUMENT TYPE: Patent

LANGUAGE: English

FAMILY ACC. NUM. COUNT: 1

PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
EP 534753	A1	19930331	EP 1992-308703	19920924

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EP 534753 B1 19961218
 R: DE, FR, GB
 US 5385988 A 19950131 US 1992-948421 19920922
 <--
 CA 2078949 A1 19930325 CA 1992-2078949 19920923
 <--
 JP 05209027 A 19930820 JP 1992-254750 19920924
 <--
 JP 2902525 B2 19990607
 PRIORITY APPLN. INFO.: JP 1991-243397 A 19910924
 <--
 JP 1991-243398 A 19910924
 <--
 JP 1991-243401 A 19910924
 <--
 JP 1991-243402 A 19910924
 <--
 JP 1991-243403 A 19910924
 <--

ED Entered STN: 13 Nov 1993

AB The composite is prepared by radically polymerizing a vinyl compound in the presence of a silica polycondensate formed by hydrolytic polycondensation of ≥ 1 alkoxysilane in a dispersion of colloidal silica. The composite (interpenetrating network) also has high rigidity, toughness, and thermal resistance. Thus, to a silica precondensate prepared from $(\text{EtO})_4\text{Si}$ and colloidal silica in iso-PrOH dispersion was added Me methacrylate at 40° in vacuo as volatiles were distilled; AIBN was added to the final solution and the mixture poured into a cell and polymerized at $80-130^\circ$ to give a cast plate with light transmittance 93.6%, and flexural modulus 4.8×10^4 kg/cm².

IT 9011-14-7, PMMA
 (interpenetrating networks with silica, moldings, transparent, heat-resistant)

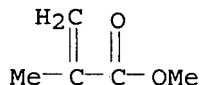
RN 9011-14-7 HCAPLUS

CN 2-Propenoic acid, 2-methyl-, methyl ester, homopolymer (CA INDEX NAME)

CM 1

CRN 80-62-6

CMF C5 H8 O2



IT 122041-85-4 141087-50-5

(on colloidal silica, interpenetrating networks with vinyl polymers, moldings, transparent, heat-resistant)

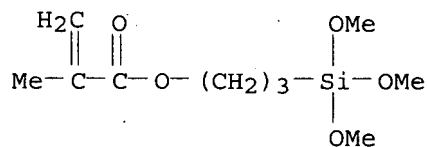
RN 122041-85-4 HCAPLUS

CN 2-Propenoic acid, 2-methyl-, 3-(trimethoxysilyl)propyl ester, polymer with triethoxymethylsilane (9CI) (CA INDEX NAME)

CM 1

CRN 2530-85-0

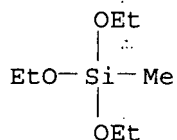
CMF C10 H20 O5 Si



CM 2

CRN 2031-67-6

CMF C7 H18 O3 Si



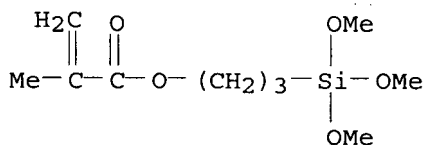
RN 141087-50-5 HCAPLUS

CN Silicic acid (H₄SiO₄), tetraethyl ester, polymer with
3-(trimethoxysilyl)propyl 2-methyl-2-propenoate (CA INDEX NAME)

CM 1

CRN 2530-85-0

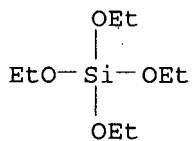
CMF C10 H20 O5 Si



CM 2

CRN 78-10-4

CMF C8 H20 O4 Si



IC ICM C08F292-00

ICS C08G077-02

CC 37-6 (Plastics Manufacture and Processing)

IT Heat-resistant materials

Impact-resistant materials

(alkoxysilane polycondensate on colloidal silica interpenetrating

networks with vinyl polymers, moldings, transparent)
 IT **Polymerization**
 (radical, of vinyl monomers containing modified colloidal silica, for transparent, heat-resistant moldings)
 IT **9011-14-7, PMMA**
 (interpenetrating networks with silica, moldings, transparent, heat-resistant)
 IT 103105-03-9 **122041-85-4** 135789-52-5 **141087-50-5**
 150857-33-3 150857-34-4 150857-35-5 150857-36-6 150876-93-0
 (on colloidal silica, interpenetrating networks with vinyl polymers, moldings, transparent, heat-resistant)

L55 ANSWER 49 OF 49 HCAPLUS COPYRIGHT 2007 ACS on STN

ACCESSION NUMBER: 1992:195565 HCAPLUS

DOCUMENT NUMBER: 116:195565

TITLE: Fire-, heat-, impact- and weather-resistant resin compositions with good moldability

INVENTOR(S): Washiyama, Junichiro; Hirata, Motoyuki; Aoyama, Tsutomu

PATENT ASSIGNEE(S): Showa Denko K. K., Japan

SOURCE: Jpn. Kokai Tokkyo Koho, 11 pp.

CODEN: JKXXAF

DOCUMENT TYPE: Patent

LANGUAGE: Japanese

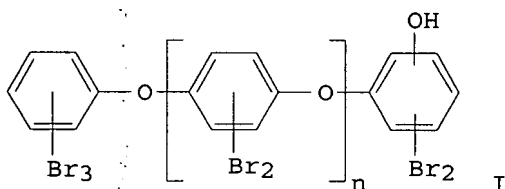
FAMILY ACC. NUM. COUNT: 1

PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
JP 03275749	A	19911206	JP 1990-75396	19900327
			<--	
PRIORITY APPLN. INFO.:			JP 1990-75396	19900327
			<--	

ED Entered STN: 16 May 1992

GI



AB The title compns. comprise (A) heat-resistant resin(s) chosen from copolymers of at least styrene compound and α,β -unsatd. dicarboxylic acid imide compound with or without rubber reinforcement; (B) thermoplastic resin(s) chosen from impact-resistant resins obtained by graft copolymn. of styrene and acrylonitrile or **Me methacrylate** on butadiene, ethylene-propylene, or acrylate ester rubber, and styrene copolymers with acrylonitrile or **Me methacrylate**; (C) Sb oxide; (D) reaction products from the Br-containing compound I ($n = 1-100$) and carboxy-terminated acrylonitrile-butadiene copolymer of mol. weight 1000-10,000; and (E) ladder silicone, at (A + B):C:D:E = 100:0.5-10:5.0-40:0.1-3.0, wherein

styrene + imide compound content in A + B is 10-50%, imide compound content in styrene + imide compound 5-50%, and the rubber content in the heat- and impact-resistant resins 5-35%. A composition from 60:20:20 styrene-acrylonitrile-N-phenylmaleimide copolymer 70, ABS 30, Sb2O3 6.0, Br compound [reaction products from 1000 g I (mol. weight 6000) and 200 g carboxy-terminated acrylonitrile (17%)-butadiene copolymer (mol. weight 3500)] 20, and Me silsesquioxane (mol. weight 4000) 2.0 parts showed melt index 10.4 g/10 min, heat-distortion temperature 109.3°, notched Izod impact strength 12.2 kg-cm/cm, tensile yield strength 380 kg/cm², heat resistance V-0, and good thermal discoloration resistance.

IC ICM C08L025-08

ICS C08L051-00; C08L051-04; C08L051-06; C08L055-02

CC 37-6 (Plastics Manufacture and Processing)

IT **Impact-resistant materials**

(polyoxyphenylene-grafted rubber blends, with good heat and fire and weather resistance)

IT **Silsesquioxanes**

(Me, plastics containing, fire-, heat-, impact- and weather-resistant, with good moldability)

IT **Silsesquioxanes**

(Me Ph, plastics containing, fire-, heat-, impact- and weather-resistant, with good moldability)

IT **Silsesquioxanes**

(Ph, plastics containing, fire-, heat-, impact- and weather-resistant, with good moldability)

IT 79-10-7D, 2-Propenoic acid, esters, polymer with acrylonitrile and styrene 100-42-5D, polymer with acrylonitrile and acrylate ester or olefin rubbers 107-13-1D, Acrylonitrile, polymer with styrene and acrylate ester or olefin rubbers 9003-54-7, Acrylonitrile-styrene copolymer 9003-56-9, ABS 25034-86-0, **Methyl**

methacrylate-styrene copolymer 31621-07-5,

Acrylonitrile-N-phenylmaleimide-styrene copolymer 110186-79-3,

Acrylonitrile-butadiene-N-phenylmaleimide-styrene graft copolymer

(plastics containing, fire-, heat-, impact- and weather-resistant, with good moldability)

=> d que 154

L2 1 SEA FILE=REGISTRY ABB=ON PLU=ON 9011-14-7/RN
 L3 1 SEA FILE=REGISTRY ABB=ON PLU=ON 80-62-6/RN
 L4 1 SEA FILE=REGISTRY ABB=ON PLU=ON 106-91-2/RN
 L5 1 SEA FILE=REGISTRY ABB=ON PLU=ON 126843-37-6/RN
 L6 1 SEA FILE=REGISTRY ABB=ON PLU=ON 603997-38-2/RN
 L8 28303 SEA FILE=REGISTRY ABB=ON PLU=ON TRIETHOXYSILYL?/CNS OR
 TRIMETHOXYSILYL?/CNS OR TRIALKOXYSILYL?/CNS
 L9 16263 SEA FILE=REGISTRY ABB=ON PLU=ON L8 AND PMS/CI
 L11 11438 SEA FILE=HCAPLUS ABB=ON PLU=ON L9
 L12 69758 SEA FILE=HCAPLUS ABB=ON PLU=ON L2
 L13 26092 SEA FILE=HCAPLUS ABB=ON PLU=ON L3
 L14 5193 SEA FILE=HCAPLUS ABB=ON PLU=ON L4
 L15 21 SEA FILE=HCAPLUS ABB=ON PLU=ON L5
 L16 1 SEA FILE=HCAPLUS ABB=ON PLU=ON L6
 L17 11438 SEA FILE=HCAPLUS ABB=ON PLU=ON L11 OR (L15 OR L16)
 L18 652 SEA FILE=HCAPLUS ABB=ON PLU=ON L17 AND (L12 OR L13 OR
 L14)
 L21 10792 SEA FILE=HCAPLUS ABB=ON PLU=ON SILSESQUIOXANES+PFT,NT,OLD
 ,NEW/CT
 L43 QUE ABB=ON PLU=ON METHACRY? OR METHYL METHACRY? OR GLY
 CIDYL METHACRY?
 L44 1667 SEA FILE=HCAPLUS ABB=ON PLU=ON L43 AND L21
 L46 940 SEA FILE=HCAPLUS ABB=ON PLU=ON L44 AND (PLASTIC? OR
 POLYMER?)/SC,SX
 L50 32 SEA FILE=HCAPLUS ABB=ON PLU=ON HASSKERL, T?/AU
 L51 199 SEA FILE=HCAPLUS ABB=ON PLU=ON NEEB, R?/AU
 L52 27 SEA FILE=HCAPLUS ABB=ON PLU=ON SEYOUM, G?/AU
 L54 6 SEA FILE=HCAPLUS ABB=ON PLU=ON (L50 OR L51 OR L52) AND
 (L46 OR L18)

=> d 154 1-6 ibib ed abs hitstr hitind

L54 ANSWER 1 OF 6 HCAPLUS COPYRIGHT 2007 ACS on STN
 ACCESSION NUMBER: 2004:1019956 HCAPLUS
 DOCUMENT NUMBER: 142:8069
 TITLE: Fluoroalkyl-containing polysiloxane-based
 antigraffiti coatings for plastic articles
 INVENTOR(S): Becker, Patrick; Hasskerl, Thomas;
 Neeb, Rolf; Seyoum, Ghirmay;
 Lingelbach, Reiner
 PATENT ASSIGNEE(S): Roehm G.m.b.H. & Co. K.-G., Germany
 SOURCE: PCT Int. Appl., 45 pp.
 CODEN: PIXXD2
 DOCUMENT TYPE: Patent
 LANGUAGE: German
 FAMILY ACC. NUM. COUNT: 1
 PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 2004101694	A1	20041125	WO 2004-EP3157	20040325
W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BW, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, EG, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NA, NI, NO, NZ, OM, PG, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, SY, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ,				

VC, VN, YU, ZA, ZM, ZW
 RW: BW, GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZM, ZW, AM,
 AZ, BY, KG, KZ, MD, RU, TJ, TM, AT, BE, BG, CH, CY, CZ, DE,
 DK, EE, ES, FI, FR, GB, GR, HU, IE, IT, LU, MC, NL, PL, PT,
 RO, SE, SI, SK, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW,
 ML, MR, NE, SN, TD, TG

DE 10321799	A1	20041216	DE 2003-10321799	20030514
AU 2004238936	A1	20041125	AU 2004-238936	20040325
CA 2523023	A1	20041125	CA 2004-2523023	20040325
EP 1622988	A1	20060208	EP 2004-723208	20040325
R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, FI, RO, CY, TR, BG, CZ, EE, HU, PL, SK				
BR 2004010228	A	20060509	BR 2004-10228	20040325
CN 1788060	A	20060614	CN 2004-80013111	20040325
JP 2007505195	T	20070308	JP 2006-529666	20040325
PRIORITY APPLN. INFO.:			DE 2003-10321799	A 20030514
			WO 2004-EP3157	W 20040325

ED Entered STN: 26 Nov 2004

AB The invention relates to antigrffiti coatings for plastic articles. The coatings are produced by condensing (a) organic silicon compds. of the general formula R_1nSiX_{4-n} , where R_1 groups are the same or different and represent groups comprising 1-20 carbon atoms, X groups are the same or different and represent alkoxy radicals having 1-20 carbon atoms or halogen, n is an integer from 0 to 3, and/or (b) a precondensate obtained from the compds. (a), and (c) compds. of the general formula $(R_2)_uSi(R_3)_t(OR)(4-t-u)$, where R_2 is a group comprising 1-20 carbon atoms and at least 3 fluorine atoms, R and R_3 are the same or different and represent groups comprising 1-20 carbon atoms, u is 1 or 2, and t is 0 or 1. At least 50% of the silicon compds. (a), in relation to the total weight of the used silicon compds., is represented by the formula R_1SiX_3 , where R_1 and X have the above-cited meaning, and the polysiloxane condensate obtained from (a) and/or (b) has a ratio of the NMR signals for $R_1SiO(OH)$ and $R_1SiO_{1.5}$ from 0.6 to 4. Thus, methyltriethoxysilane (250), deionized water (91.5), and acetic acid (12.5) were stirred for 1 h and left at room temperature for 24 h, followed by adding propionamide (18.5), zinc octanoate (1.55), toluene (14), and 10%-KOH (2.15 g). The mixture was left for varying times (from 70.5 to 420 h), which corresponded to a $MeSiO(OH)/MeSiO_{1.5}$ NMR signal ratio from 2.25 to 1.36, resp., and a reactive fluoroalkylsilane (Dynasilan F 8262, 10%-solution, 40 g) was added at these times to provide antigrffiti coating compns. for PMMA surfaces.

IC ICM C09D183-04

ICS C08G064-42

CC 42-10 (Coatings, Inks, and Related Products)

Section cross-reference(s): 38

IT **Silsesquioxanes**

(polysiloxane-, fluorine-containing; fluoroalkyl-containing polysiloxane-based antigrffiti coatings for plastic articles)

IT **Silsesquioxanes**

(polysiloxane-, hydroxy-containing; fluoroalkyl-containing polysiloxane-based antigrffiti coatings for plastic articles)

IT 9011-14-7, Poly(methyl methacrylate) 25038-59-9,

uses

(fluoroalkyl-containing polysiloxane-based antigrffiti coatings for plastic articles)

REFERENCE COUNT: 3 THERE ARE 3 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE

RE FORMAT

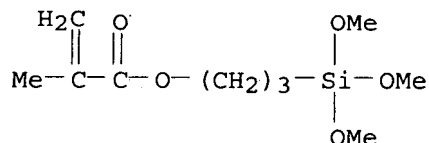
L54 ANSWER 2 OF 6 HCAPLUS COPYRIGHT 2007 ACS on STN
 ACCESSION NUMBER: 2004:534275 HCAPLUS
 DOCUMENT NUMBER: 141:90582
 TITLE: Manufacture of deformable water-dispersing plastic bodies
 INVENTOR(S): Hasskerl, Thomas; Becker, Patrick;
 Neeb, Rolf; Seyoum, Ghirmay
 PATENT ASSIGNEE(S): Roehm GmbH & Co. Kg, Germany
 SOURCE: PCT Int. Appl., 43 pp.
 CODEN: PIXXD2
 DOCUMENT TYPE: Patent
 LANGUAGE: German
 FAMILY ACC. NUM. COUNT: 1
 PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 2004055128	A1	20040701	WO 2003-EP11544	20031018
W:	AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DK, DM, DZ, EC, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NO, NZ, OM, PH, PL, PT, RO, RU, SD, SE, SG, SK, SL, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VN, YU, ZA, ZM, ZW			
RW:	GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZM, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM, AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IT, LU, MC, NL, PT, RO, SE, SI, SK, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG			
DE 10259240	A1	20040708	DE 2002-10259240	20021217
AU 2003282033	A1	20040709	AU 2003-282033	20031018
EP 1572827	A1	20050914	EP 2003-773648	20031018
R:	AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, LV, FI, RO, MK, CY, AL, TR, BG, CZ, EE, HU, SK			
CN 1726268	A	20060125	CN 2003-80106452	20031018
JP 2006509865	T	20060323	JP 2004-559670	20031018
US 2006063011	A1	20060323	US 2005-539057	20050615
PRIORITY APPLN. INFO.:			DE 2002-10259240	A 20021217
			WO 2003-EP11544	W 20031018

ED Entered STN: 02 Jul 2004
 AB The plastic bodies are made of a plastic substrate, ≥ 1 H₂O-dispersing inorg. coating and an adhesion-promoting intermediate layer arranged between the plastic substrate and the inorg. coating. The coating can be obtained by applying the intermediate layer from a mixture with a solvent which has an evaporating number ≤ 20 , e.g., BuOAc. The sum of the layer thicknesses of the inorg. coating and the intermediate layer is ≤ 700 nm. Thus, PMMA plate was coated with 0.7% BuOAc solution of γ -methacryloyloxypropyltrimethoxysilane-Me methacrylate copolymer (intermediate layer), dried and coated with coating containing 25 parts silica sol (30% solids), 0.1 part O-Et dithiocarbonate 3-sulfopropyl ester potassium salt (Raschig OPX) and 0.4 parts Genapol X 80 in 100 parts H₂O, adjusted to pH 9 (NaOH).
 IT 26936-30-1, γ -Methacryloyloxypropyltrimethoxysilane-Methyl methacrylate copolymer
 (manufacture of deformable water-dispersing plastic articles)
 RN 26936-30-1 HCAPLUS

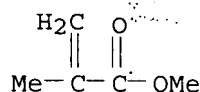
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CM 2

CMF C5 H8 O2

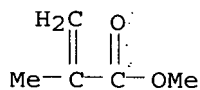


RN 9011-14-7 HCAPLUS

CN 2-Propenoic acid, 2-methyl-, methyl ester, homopolymer (CA INDEX
NAME)

CM 1

CMF C5 H8 O2



IT 9043-30-5, Genapol X 80 26936-30-1, γ-

(manufacture of deformable water-dispersing plastic articles)

(substrate; manufacture of deformable water-dispersing plastic articles)

REFERENCE COUNT: 1 THERE ARE 1 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

DOCUMENT NUMBER: 141:73055

TITLE: Water-spreading coatings for plastics
 INVENTOR(S): Hasskerl, Thomas; Becker, Patrick; Reeb, Rolf; Seyoum, Ghirmay
 PATENT ASSIGNEE(S): Roehm GmbH & Co. Kg, Germany
 SOURCE: Ger. Offen., 14 pp.
 CODEN: GWXXBX
 DOCUMENT TYPE: Patent
 LANGUAGE: German
 FAMILY ACC. NUM. COUNT: 1
 PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
DE 10259241	A1	20040701	DE 2002-10259241	20021217
WO 2004055127	A1	20040701	WO 2003-EP11537	20031018
W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DK, DM, DZ, EC, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NI, NO, NZ, OM, PG, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, SY, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM, ZW RW: GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZM, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM, AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IT, LU, MC, NL, PT, RO, SE, SI, SK, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG				
AU 2003274033	A1	20040709	AU 2003-274033	20031018
EP 1572826	A1	20050914	EP 2003-758011	20031018
EP 1572826	B1	20061011		
R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, LV, FI, RO, MK, CY, AL, TR, BG, CZ, EE, HU, SK				
AT 342320	T	20061115	AT 2003-758011	20031018
PRIORITY APPLN. INFO.: DE 2002-10259241 A 20021217 WO 2003-EP11537 W 20031018				

ED Entered STN: 01 Jul 2004

AB The title coatings, with good adhesion and optical properties, comprise coupling layers and aqueous inorg. topcoats containing flow improvers bearing anionic groups, which give good miscibility with H2O without phase formation. A PMMA plate was coated with a coupler [87.6:12.4 MMA-3-(trimethoxysilyl)propyl methacrylate] and then with 25 parts 30% aqueous SiO2 sol containing 0.05 parts O-(3-sulfopropyl) dithiocarbonate and 0.4 part ethoxylated fatty alc. ((Genapol X80) (flow improvers) and dried to give a coating with Gardner adhesion (DIN 53778) 10,000 cycles and good optical properties.

IT 26936-30-1, Methyl methacrylate-3-(trimethoxysilyl)propyl methacrylate copolymer
 (couplers for water-spreading coatings)

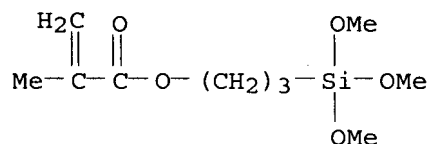
RN 26936-30-1 HCAPLUS

CN 2-Propenoic acid, 2-methyl-, methyl ester, polymer with 3-(trimethoxysilyl)propyl 2-methyl-2-propenoate (CA INDEX NAME)

CM 1

CRN 2530-85-0

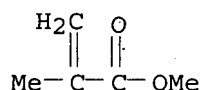
CMF C10 H2O 05 Si



CM 2

CRN 80-62-6

CMF C5 H8 O2



IT 9011-14-7

(water-spreading coatings for plastics)

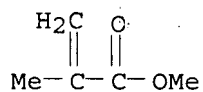
RN 9011-14-7 HCAPLUS

CN 2-Propenoic acid, 2-methyl-, methyl ester, homopolymer (CA INDEX NAME)

CM 1

CRN 80-62-6

CMF C5 H8 O2



IC ICM C08J007-16

ICS C08K005-42; C09D183-04; B05D005-00

CC 42-10 (Coatings, Inks, and Related Products)

IT 26936-30-1, Methyl methacrylate-3-(trimethoxysilyl)propyl methacrylate copolymer

(couplers for water-spreading coatings)

IT 9011-14-7 25038-59-9, miscellaneous

(water-spreading coatings for plastics)

L54 ANSWER 4 OF 6 HCAPLUS COPYRIGHT 2007 ACS on STN

ACCESSION NUMBER: 2004:525888 HCAPLUS

DOCUMENT NUMBER: 141:73054

TITLE: Water-spreading coatings for plastics

INVENTOR(S) : Hasskerl, Thomas; Neeb, Rolf;

Seyoum, Ghirmay; Becker, Patrick

PATENT ASSIGNEE(S) : Roehm GmbH & Co. Kg, Germany.

SOURCE: Ger. Offen., 14 pp.

CODEN: GWXXBX

DOCUMENT TYPE: Patent

LANGUAGE: German

FAMILY ACC. NUM: COUNT: 1

PATENT INFORMATION:

PATENT NO.

KIND

DATE _____

APPLICATION NO.

DATE _____


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DE 10259238      A1      20040701      DE 2002-10259238      20021217
CA 2509006       A1      20040701      CA 2003-2509006      20031018
WO 2004055102    A1      20040701      WO 2003-EP11536      20031018
  W:  AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH,
      CN, CO, CR, CU, CZ, DK, DM, DZ, EC, EE, ES, FI, GB, GD, GE,
      GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC,
      LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NI,
      NO, NZ, OM, PG, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL,
      SY, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA,
      ZM, ZW
  RW:  GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZM, ZW, AM, AZ,
      BY, KG, KZ, MD, RU, TJ, TM, AT, BE, BG, CH, CY, CZ, DE, DK,
      EE, ES, FI, FR, GB, GR, HU, IE, IT, LU, MC, NL, PT, RO, SE,
      SI, SK, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR,
      NE, SN, TD, TG
AU 2003274032    A1      20040709      AU 2003-274032      20031018
EP 1572787       A1      20050914      EP 2003-758010      20031018
EP 1572787       B1      20061213
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      PT, IE, SI, LT, LV, FI, RO, MK, CY, AL, TR, BG, CZ, EE, HU, SK
BR 2003017411    A      20051108      BR 2003-17411      20031018
CN 1726251       A      20060125      CN 2003-80106445      20031018
JP 2006509656    T      20060323      JP 2004-559668      20031018
AT 348123        T      20070115      AT 2003-758010      20031018
TW 256401        B      20060611      TW 2003-92129785      20031027
US 2006068197    A1      20060330      US 2005-538887      20050614
PRIORITY APPLN. INFO.:      DE 2002-10259238      A      20021217
                                WO 2003-EP11536      W      20031018

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ED Entered STN: 01 Jul 2004

AB The title coatings, with good adhesion, are prepared by coating plastics with a coupling layer comprising two polymers with H2O contact angle $\leq 73^\circ$ and $\geq 75^\circ$, resp. and then with inorg. coatings. A plastic (e.g., PMMA) was coated with a mixture of 88:12 MMA-3-(trimethoxysilyl)propyl methacrylate copolymer and 80:20 Bu methacrylate-MMA copolymer (contact angle vs. H2O 66 and 77.7°, resp.) and then with a 25% aqueous SiO2 sol, air-dried, and dried at 80° to give a coating with Gardner adhesion (DIN 53778) 12,000 cycles. The resulting sheet could be bent at a radius of 47.5 mm without cracks or turbidity.

IT 26936-30-1, Methyl methacrylate-3-(trimethoxysilyl)propyl methacrylate copolymer
(couplers for water-spreading coatings on plastics)

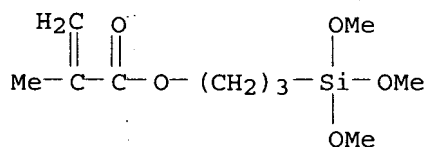
RN 26936-30-1 HCAPLUS

CN 2-Propenoic acid, 2-methyl-, methyl ester, polymer with 3-(trimethoxysilyl)propyl 2-methyl-2-propenoate (CA INDEX NAME)

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CRN 2530-85-0

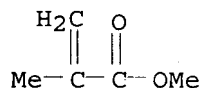
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CM 2

CRN 80-62-6

CMF C5 H8 O2



IT 9011-14-7

(water-spreading coatings for plastics)

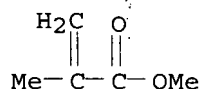
RN 9011-14-7 HCAPLUS

CN 2-Propenoic acid, 2-methyl-, methyl ester, homopolymer (CA INDEX
NAME)

CM 1

CRN 80-62-6

CMF C5 H8 O2



IC ICM C08J007-04

ICS C09D183-02; B32B007-00; B32B007-12; B32B033-00

CC 42-10 (Coatings, Inks, and Related Products)

IT 25608-33-7, Butyl methacrylate-methyl methacrylate copolymer

26936-30-1, Methyl methacrylate-3-(trimethoxysilyl)propyl methacrylate copolymer

(couplers for water-spreading coatings on plastics)

IT 9011-14-7 25038-59-9, miscellaneous

(water-spreading coatings for plastics).

L54 · ANSWER 5 OF 6 HCAPLUS COPYRIGHT 2007 ACS on STN

ACCESSION NUMBER: 2003:757749 HCAPLUS

DOCUMENT NUMBER: 139:261867

TITLE: Polymerizable compositions for production of
hail-resistant acrylic laminated glass

INVENTOR(S) : Hasskerl, Thomas; Neeb, Rolf;

Seyoum, Ghirmay

PATENT ASSIGNEE(S) : Roehm GmbH & Co. KG, Germany

SOURCE: PCT Int. Appl., 47 pp.

CODEN: PIXXD2

DOCUMENT TYPE: Patent

LANGUAGE : German

FAMILY ACC. NUM. COUNT: 1

PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 2003078485	A1	20030925	WO 2003-EP1788	20030221
W:			AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DK, DM, DZ, EC, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NO, NZ, OM, PH, PL, PT, RO, RU, SD, SE, SG, SK, SL, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VN, YU, ZA, ZM, ZW	
RW:			GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZM, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM, AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IT, LU, MC, NL, PT, SE, SI, SK, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG	
DE 10212458	A1	20031002	DE 2002-10212458	20020320
AU 2003206941	A1	20030929	AU 2003-206941	20030221
EP 1485416	A1	20041215	EP 2003-704671	20030221
R:			AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, LV, FI, RO, MK, CY, AL, TR, BG, CZ, EE, HU, SK	
JP 2005529988	T	20051006	JP 2003-576483	20030221
US 2005016213	A1	20050127	US 2004-500362	20040628
PRIORITY APPLN. INFO.:			DE 2002-10212458	A 20020320
			WO 2003-EP1788	W 20030221

ED Entered STN: 26 Sep 2003

AB A polymerizable composition is produced by (a) reacting (A) 0.5-5 parts of at least one silicon compound of the formula (I) $\text{Si}m\text{R}1n\text{R}2o\text{OrX}s$ with (B) 0.01-2.0 parts of water and (C) 0-4.0 parts of at least one acid, and (b) subsequent addition of (D) 0.5-5 parts of at least one (meth)acrylate of the formula (II) $\text{CH}_2=\text{C}(\text{R}_3)-\text{C}(\text{O})-\text{OR}_4$, (E) 55-98.99 parts of at least one polymerizable ethylenically unsatd. monomer, which is different from (D), and (F) 0-30 parts of at least one polymer and/or copolymer obtained by the polymerization or copolymerization of the ethylenically unsatd. monomer (E). In the formula (I), R1 groups are independently selected from an alkenyl or cycloalkenyl group with 2-12 carbon atoms and one or more ester groups; R2 groups are independently selected from an alkenyl or cycloalkenyl group with 1-12 carbon atoms; X groups are independently selected from a halogen atom or a C1-C6-alkoxy group; m is ≥ 1 ; n is selected from 1 to $2m+1$; o is selected from 0 to $2m$; r is selected from 0 to $m-1$; s is selected from 1 to $2m+1$, so that $n+o+s$ equals to $2m+2$. In the formula (II), R3 is H or Me, and R4 is C1-C20-aliphatic or cycloaliph. group containing a hydroxy, thio, primary amino, secondary amino and/or epoxy group. The composition is used for production of impact-resistant acrylic laminated glass (hail-resistant laminated glass) for use in windows, glass doors, glass-enclosed patios, greenhouses, noise protection walls, aquariums, display cabinets, glass counters, and balcony railing.

IT 126843-37-6P, γ -Methacryloxypropyltriethoxysilane**

* homopolymer

(polymerizable compns. for production of hail-resistant acrylic laminated glass)

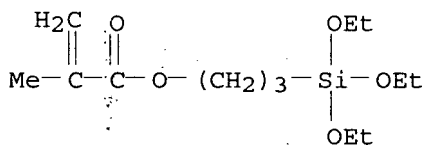
RN 126843-37-6 HCAPLUS

CN 2-Propenoic acid, 2-methyl-, 3-(triethoxysilyl)propyl ester, homopolymer (CA INDEX NAME)

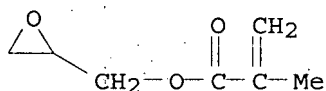
CM 1

$$\begin{array}{c} \text{H}_2\text{C} \quad \text{O} \\ || \quad || \\ \text{Me}-\text{C}-\text{C}-\text{O}-(\text{CH}_2)_3-\text{Si}-\text{OEt} \\ | \\ \text{OEt} \end{array}$$

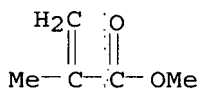
CRN 21142-29-0
CMF C13 H26 O5 Si



CRN 106-91-2
CMF C7 H10 O3

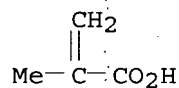


CRN 80-62-6
CMF C5 H8 O2



CRN 79-41-4

CMF C4 H6 O2



IT 9011-14-7, Poly(methyl methacrylate)
(polymerizable compns. for production of hail-resistant acrylic laminated glass)

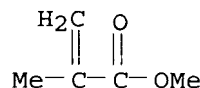
RN 9011-14-7 HCAPLUS

CN 2-Propenoic acid, 2-methyl-, methyl ester, homopolymer (CA INDEX NAME)

CM 1

CRN 80-62-6

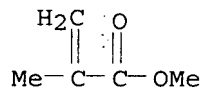
CMF C5 H8 O2



IT 80-62-6, Methyl methacrylate
106-91-2, Glycidyl methacrylate
(polymerizable compns. for production of hail-resistant acrylic laminated glass)

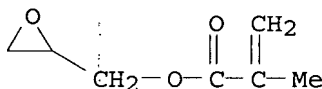
RN 80-62-6 HCAPLUS

CN 2-Propenoic acid, 2-methyl-, methyl ester (CA INDEX NAME)



RN 106-91-2 HCAPLUS

CN 2-Propenoic acid, 2-methyl-, 2-oxiranylmethyl ester (CA INDEX NAME)



IC ICM C08F230-08

ICS C08F246-00; B32B027-30

CC 37-6 (Plastics Manufacture and Processing)
Section cross-reference(s): 38, 57

IT Silsesquioxanes

(acrylic; polymerizable compns. for production of hail-resistant acrylic laminated glass)

IT 126843-37-6P, γ -Methacryloxypropyltriethoxysilane**

* homopolymer

(polymerizable compns. for production of hail-resistant acrylic laminated glass)

IT ***603997-38-2P

(polymerizable compns. for production of hail-resistant acrylic laminated glass)

IT 9011-14-7, Poly(methyl methacrylate)
(polymerizable compns. for production of hail-resistant acrylic laminated glass)

IT 80-62-6, Methyl methacrylate
106-91-2, Glycidyl methacrylate
(polymerizable compns. for production of hail-resistant acrylic laminated glass)

REFERENCE COUNT: 2 THERE ARE 2 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L54 ANSWER 6 OF 6 HCAPLUS COPYRIGHT 2007 ACS on STN

ACCESSION NUMBER: 2003:6061 HCAPLUS

DOCUMENT NUMBER: 138:74759

TITLE: Method for producing molded plastic bodies comprising an electrically conductive coating and molded bodies having one such coating

INVENTOR(S): Hasskerl, Thomas; Servaty, Sabine;

Neeb, Rolf; Seyoum, Ghirmay;

Katusic, Stipan; Miess, Horst

PATENT ASSIGNEE(S): Roehm GmbH & Co. KG, Germany

SOURCE: PCT Int. Appl., 35 pp.

CODEN: PIXXD2

DOCUMENT TYPE: Patent

LANGUAGE: German

FAMILY ACC. NUM. COUNT: 1

PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 2003000808	A1	20030103	WO 2002-EP6230	20020607
W:			AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DK, DM, DZ, EC, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NO, NZ, OM, PH, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VN, YU, ZA, ZM, ZW	
RW:			GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZM, ZW, AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG	
DE 10129374	A1	20030102	DE 2001-10129374	20010620
CA 2449035	A1	20030103	CA 2002-2449035	20020607
AU 2002350517	A1	20030108	AU 2002-350517	20020607
EP 1401967	A1	20040331	EP 2002-780826	20020607
R:			AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, LV, FI, RO, MK, CY, AL, TR	
TW 220870	B	20040911	TW 2002-91113228	20020618
US 2004213989	A1	20041028	US 2004-480633	20040621
PRIORITY APPLN. INFO.:			DE 2001-10129374	A 20010620
			WO 2002-EP6230	W 20020607

ED Entered STN: 05 Jan 2003

AB A molded body is coated on one side, using methods known per se, with a coating system consisting of (a) a binding agent, (b) optionally a solvent, (c) optionally other additives used in coating systems, and (d) between 10 and 300 weight parts [relating to constituent (a)] of an

elec. conductive metal oxide powder having an average particle size of between 5 and 130 nm. Before hardening the coating, the molded body is treated or stored in such a way that the metal oxide powder particles are concentrated in the near the boundary layer with the air; so that at least 65% of the particles are situated in said half of the coating thickness. The coating is then hardened or left to be hardened. This process produces coatings with good elec. conductivity at lower concns. of metal oxide.

IC ICM C09D005-24

ICS H01B001-20

CC 42-2 (Coatings, Inks, and Related Products)

Section cross-reference(s): 38, 76

IT **Silsesquioxanes**

(method for producing molded plastic bodies having elec. conductive coatings containing metal oxides)

IT 25498-03-7P, Methyltrimethoxysilane homopolymer 38891-86-0P, 1,6-Hexanediol diacrylate-pentaerythritol tetraacrylate copolymer 94772-40-4P, 2-Hydroxyethyl **methacrylate**-polyethylene glycol diacrylate copolymer 479623-32-0P, Ethyl **methacrylate**-hydroxypropyl acrylate copolymer

(binder; method for producing molded plastic bodies having elec. conductive coatings containing metal oxides)

IT 79-41-4D, **Methacrylic** acid, esters, polymers

(substrates; method for producing molded plastic bodies having elec. conductive coatings containing metal oxides)

REFERENCE COUNT: 5 THERE ARE 5 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

=> d his nofile

(FILE 'HOME' ENTERED AT 14:15:25 ON 11 MAY 2007)

FILE 'HCAPLUS' ENTERED AT 14:15:33 ON 11 MAY 2007

L1 1 SEA ABB=ON PLU=ON US20050016213/PN

FILE 'REGISTRY' ENTERED AT 14:31:30 ON 11 MAY 2007

L2 1 SEA ABB=ON PLU=ON 9011-14-7/RN

L3 1 SEA ABB=ON PLU=ON 80-62-6/RN

L4 1 SEA ABB=ON PLU=ON 106-91-2/RN

L5 1 SEA ABB=ON PLU=ON 126843-37-6/RN

L6 1 SEA ABB=ON PLU=ON 603997-38-2/RN

L7 465 SEA ABB=ON PLU=ON SI AND PMS/CI

L8 28303 SEA ABB=ON PLU=ON TRIETHOXYISILYL?/CNS OR TRIMETHOXYISILYL?
/CNS OR TRIALKOXYISILYL?/CNS

L9 16263 SEA ABB=ON PLU=ON L8 AND PMS/CI

L10 1 SEA ABB=ON PLU=ON L9 AND L6

FILE 'HCAPLUS' ENTERED AT 14:43:16 ON 11 MAY 2007

L11 11438 SEA ABB=ON PLU=ON L9

L12 69758 SEA ABB=ON PLU=ON L2

L13 26092 SEA ABB=ON PLU=ON L3

L14 5193 SEA ABB=ON PLU=ON L4

L15 21 SEA ABB=ON PLU=ON L5

L16 1 SEA ABB=ON PLU=ON L6

L17 11438 SEA ABB=ON PLU=ON L11 OR (L15 OR L16)

L18 652 SEA ABB=ON PLU=ON L17 AND (L12 OR L13 OR L14)

L19 2 SEA ABB=ON PLU=ON L15 AND (L12 OR L13 OR L14)

L20 2 SEA ABB=ON PLU=ON L16 OR L19

E SILSESQUIOXANES/CT

L21 10792 SEA ABB=ON PLU=ON SILSESQUIOXANES+PFT,NT,OLD,NEW/CT

L22 534 SEA ABB=ON PLU=ON L21 AND (L12 OR L13 OR L14)

L23 178 SEA ABB=ON PLU=ON L22 AND POF/RL

L24 191 SEA ABB=ON PLU=ON L18 AND POF/RL

L25 299 SEA ABB=ON PLU=ON L23 OR L24

L26 13 SEA ABB=ON PLU=ON L25 AND POLYMER?/SC,SX

L27 0 SEA ABB=ON PLU=ON L26 AND L1

L28 172 SEA ABB=ON PLU=ON L25 AND (POLYMER? OR PLASTIC?)/SC,SX

E POLYMERIZATION/CT

L29 220445 SEA ABB=ON PLU=ON POLYMERIZATION+PFT,NT,OLD,NEW/CT

L30 9 SEA ABB=ON PLU=ON L28 AND L29

L31 23 SEA ABB=ON PLU=ON L20 OR L26 OR L30

L32 111 SEA ABB=ON PLU=ON L28 AND (COMPOSITION? OR FORMULATION?
OR MIXTURE#)

L33 1 SEA ABB=ON PLU=ON L32 AND (HAIL(A)RESIS? OR HAILRESIST?)

E HAIL-RESISTANT/CT

E IMPACT MODIFIERS/CT

L34 1307 SEA ABB=ON PLU=ON "IMPACT MODIFIERS"+PFT,NT,OLD,NEW/CT

E IMPACT-RESISTANT MATERIALS/CT

L35 14553 SEA ABB=ON PLU=ON "IMPACT-RESISTANT MATERIALS"+PFT,NT,OLD
NEW/CT

L36 62 SEA ABB=ON PLU=ON L18 AND L29

L37 2 SEA ABB=ON PLU=ON L36 AND (L34 OR L35)

L38 13 SEA ABB=ON PLU=ON L18 AND (L34 OR L35)

L39 14 SEA ABB=ON PLU=ON L18 AND (HAIL(A)RESIS? OR HAILRESIST?
OR IMPACT MODIFIER? OR IMPACT(A)RESISTANT MATERIAL? OR
IMPACTRESISTANT MATERIAL?)

L40 34 SEA ABB=ON PLU=ON L31 OR L33 OR L37 OR L38 OR L39

L41 1 SEA ABB=ON PLU=ON L40 AND L1
 L42 24 SEA ABB=ON PLU=ON L40 AND (1840-2002)/PRY,AY,PY
 L43 QUE ABB=ON PLU=ON METHACRY? OR METHYL METHACRY? OR
 GLYCIDYL METHACRY?
 L44 1667 SEA ABB=ON PLU=ON L43 AND L21
 L45 1405 SEA ABB=ON PLU=ON L44 AND (PLASTIC? OR POLYMER?)
 L46 940 SEA ABB=ON PLU=ON L44 AND (PLASTIC? OR POLYMER?)/SC,SX
 L47 49 SEA ABB=ON PLU=ON L46 AND (HAIL(A)RESIS? OR HAILRESIST?
 OR IMPACT MODIFIER? OR IMPACT(A)RESISTANT MATERIAL? OR
 IMPACTRESISTANT MATERIAL?)
 L48 30 SEA ABB=ON PLU=ON L47 AND (1840-2002)/PRY,AY,PY
 L49 50 SEA ABB=ON PLU=ON L42 OR L48
 L50 32 SEA ABB=ON PLU=ON HASSKERL, T?/AU
 L51 199 SEA ABB=ON PLU=ON NEEB, R?/AU
 L52 27 SEA ABB=ON PLU=ON SEYOUM, G?/AU
 L53 3 SEA ABB=ON PLU=ON (L50 OR L51 OR L52) AND L46
 L54 6 SEA ABB=ON PLU=ON (L50 OR L51 OR L52) AND (L46 OR L18)
 L55 49 SEA ABB=ON PLU=ON L49 NOT L54
 SEL HIT RN 1-
 L56 46 SEA ABB=ON PLU=ON L46 AND (L34 OR L35)
 L57 0 SEA ABB=ON PLU=ON L56 NOT L47